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Transcript Exhibit(s)

Docket #(s): W-01303A-09-0343
SW-01303A-09-0343

Exhibit # : Please See attached Exhibit List for the status of each Exhibit.
Part 1 of 2

Arizona Corporation Commission
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To: Docket Control

Date: June 18, 2010

Re: Arizona-American Water Co. – Phase II
W-01303A-09-0343, et al.
Volumes I through VIII, Concluded
May 18 through June 3, 2010

STATUS OF ORIGINAL EXHIBITS

FILED WITH DOCKET CONTROL

Anthem Golf & Country Club (AGCC Exhibits)

1 and 2

Anthem Community Council (Anthem Exhibits)

13, 14, 16 through 18

Arizona-American Water Co. (A Exhibits)

5, 39 through 43, 45 through 50

DMB White Tank, L.L.P. (DMB Exhibits)

1

W.R. Hansen (Hansen Exhibits)

3 through 5

Marshall Magruder (Magruder Exhibits)

1 through 4

Town of Paradise Valley (PV Exhibits)

1

Residential Utility Consumer Office (R Exhibits)

12 through 21

The Resorts (RES Exhibits)

1 and 2

Staff (S Exhibits)

12 through 16

Larry D. Woods (Woods Exhibits)

1

EXHIBITS UTILIZED IN PHASE I
Filed with Docket Control on 05-11-2010

Anthem Community Council (Anthem Exhibits)

1 through 12

Arizona-American Water Co. (A Exhibits)

1 through 4, 6 through 38

W.R. Hansen (Hansen Exhibits)

1 and 2

Residential Utility Consumer Office (R Exhibits)

1 through 11

Staff (S Exhibits)

1 through 11

CONFIDENTIAL EXHIBITS
Retained by ALJ Wolfe

Anthem Community Council (Anthem Exhibits)

15

Arizona-American Water Co. (A Exhibits)

44

Copy to:

Ms. Teena Wolfe, Administrative Law Judge
Mr. Thomas Campbell, Arizona-American Water Co.
Ms. Maureen Scott, Staff
Mr. Daniel Pozefsky, RUCO
Mr. Lawrence V. Robertson, Anthem Community Council

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BEFORE THE ARIZONA CORPORATION

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Commissioner

BOB STUMP
Commissioner

EXHIBIT
AG-SC-1
ADMITTED

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT	DOCKET NO. SW-01303A-09-0343

Arizona Corporation Commission
DOCKETED
FEB 22 2010
DOCKETED BY

DIRECT TESTIMONY
REGARDING ISSUES OTHER THAN RATE STRUCTURE
OF
DESI HOWE
ON BEHALF OF
ANTHEM GOLF AND COUNTRY CLUB
FEBRUARY 22, 2009

BROWNSTEIN HYATT FARBER SCHRECK, LLP
21 East Carrillo Street
Santa Barbara, CA 93101

EXECUTIVE SUMMARY

Desi Howe testifies that:

The Anthem Golf and Country Club (the "Club") is a 36-hole championship golf course. In addition to two golf courses, the Club features two clubhouses, tennis courts, pools, spa services, formal and casual dining, golf shops, locker rooms, and fitness facilities.

The Club is the largest non-potable irrigation water customer in the Anthem District. The Club maintains the courses through irrigation with reclaimed water provided by Arizona American Water Company ("AAWC") subject to its non-potable irrigation rate. Based on the Anthem community's location and a Maricopa County ordinance precluding the Club's extraction of groundwater for irrigation purposes, AAWC represents the Club's sole irrigation water supply. The primary component of the irrigation water delivered to the Club is treated wastewater effluent.

The proposed non-potable irrigation rate increase from the present rate of $1.43/1,000 gallons to ~$2.92/1,000 gallons represents a 104.2% increase in water rates. If approved, since 2008, the rate will have been raised from $0.62/1,000 gallons to $2.92/1,000 gallons – an increase of greater than 370%. Assuming the proposed rate increase takes effect, the Club's annual irrigation water costs will increase from approximately $600,000 per year to more than $1.2 million per year. Irrigation water is the largest component of the Club's annual utilities budget and this increase would make water an even larger component of the Club's current budget.

Without water for irrigation, the Club could not continue its operations, and the corresponding benefits provided by the Club to the community – the recreational opportunities, the aesthetic impacts of maintaining a green course, as well as the increase in real estate values realized by homeowners within the community due to the proximity and availability of the Club – would cease. A rate increase that undermines the Club's ability to operate profitably not only might deprive the Anthem community of these benefits, but might further disrupt the unstable real estate market in the community, where many homes are already in foreclosure proceedings.

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Charles Desmond "Desi" Howe, Jr. My business address is 2708 W. Anthem Club Drive, Anthem, Arizona 85086, and my business phone is 623-742-6201.

Q. IN WHAT CAPACITY AND BY WHOM ARE YOU EMPLOYED?

A. I am employed by Anthem Golf and Country Club (the "Club") as its General Manager.

Q. PLEASE DESCRIBE YOUR PRIMARY RESPONSIBILITIES FOR THE CLUB.

A. I am responsible for the management and operations of Anthem Golf and Country Club. I also act as a regional manager and I am additionally responsible for the management and operations of Gainey Ranch Golf Club and Seville Golf & Country Club.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND EDUCATION.

A. I have a Bachelor of Arts degree from Heidelberg College. I have over 18 years of experience in the golf and hospitality industries and I have worked at all types of facilities in the United States, including many world renowned resorts and country clubs.

Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION BEFORE?

A. No. On behalf of the Club, I provided comments on AAWC's last rate Anthem District proposed rate increases, including comments on the Recommended Opinion & Order, in the proceedings under Docket No. WS-01303A-06-0403.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. My testimony is intended to describe the Club's use of water received from Arizona-American Water Company (AAWC) for the Club's irrigation purposes, and to outline the potential impacts of the proposed rate increase. Pursuant to the September 24, 2009 Procedural Order in these proceedings, this testimony pertains to all issues other than rate design. The Club will submit

separate testimony regarding rate design.

III. DESCRIPTION OF CLUB OPERATIONS

Q. WHERE IS ANTHEM GOLF AND COUNTRY CLUB LOCATED?

A. The Anthem Golf and Country Club ("the Club") is located in Anthem, Arizona and in Maricopa County. The Club lies within the AAWC's Anthem Water District.

Q. PLEASE DESCRIBE THE CLUB'S ACTIVITIES.

A. The Anthem Golf and Country Club (the "Club") is a 36-hole championship golf course, consisting of the Ironwood and Persimmon 18-hole courses. Tucked into the quiet beauty of the high Sonoran desert foothills, the unique hillside setting provides extraordinary mountainous views. In addition to the 36 holes of golf, the Club features two clubhouses, tennis courts, pools, spa services, formal and casual dining, golf shops, locker rooms, and two fitness facilities. The Club currently has 585 memberships providing golf privileges to the Club's courses. Additionally, each of the over 2,860 lot owners within the Anthem community are considered social members of the Club and have membership privileges to the Club's social and fitness facilities, as well as reduced greens fees for use of the Club's courses.

IV. DESCRIPTION OF THE CLUB'S IRRIGATION WATER USE

Q. WHO IS THE WATER PROVIDER FOR THE CLUB?

A. The Club receives water from AAWC subject to its non-potable irrigation rate. The Club is the largest non-potable irrigation water customer in the Anthem District. Based on the Anthem community's location and a Maricopa County ordinance precluding the Club's extraction of groundwater for irrigation purposes, AAWC's deliveries of non-potable irrigation water represent the Club's sole irrigation water supply.

Q. PLEASE DESCRIBE THE CLUB'S IRRIGATION WATER USE.

A. The Ironwood and Persimmon courses are permitted to be irrigated with reclaimed water, pursuant to two Arizona Department of Environmental Quality reclaimed water permits. The Club's irrigation water demands are relatively consistent, with the primary variable affecting its water use from year to year being the weather, which is outside the Club's control. The Club's

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average irrigation water use from 2007-2009 was just under 405 million gallons per year, with a less than 5% variation from year to year.

Q. WHAT IS THE SOURCE OF THE CLUB'S NON-POTABLE IRRIGATION WATER?

A. The primary component of the irrigation water AAWC delivers to the Club is treated wastewater effluent. This is water that is already being delivered to the community for residential or commercial use, and there is no additional infrastructure necessary to deliver it to the community –the reclaimed water is simply water that has already served its initial purpose that is being reused.

V. DESCRIPTION OF PROPOSED RATE INCREASE AND POSSIBLE IMPACTS ON THE CLUB

Q. PLEASE SUMMARIZE THE PROPOSED RATE INCREASE.

A. In the present rate proceeding, AAWC is proposing to increase the Anthem District non-potable irrigation rate by 104.2 % from the present rate of $1.43/1,000 gallons to approximately $2.92/1,000 gallons. If the Commission approves AAWC's proposal, pursuant to a decision in this proceeding and the Commission's June 2008 Decision No. 70372 in Docket WS-01303A-06-0403, since June 2008, AAWC's non-potable irrigation rate in the Anthem District will have risen from $0.62/1,000 gallons to $2.92/1,000 gallons – an increase of greater than 370%.

Q. PLEASE EXPLAIN THE POSSIBLE IMPACTS OF THE PROPOSED RATE INCREASE ON THE CLUB AND ITS OPERATIONS.

A. If the Commission approves AAWC's proposed non-potable irrigation rate increase, the Club's annual irrigation water costs will increase from approximately $600,000 per year to $1.2 million per year. Irrigation water is the largest component of the Club's annual utilities budget, representing over one half the total budget. The proposed 104.2% increase would raise the Club's irrigation water costs from one half to almost 75% of its annual utilities budget. Unfortunately, if the Commission grants the proposed increase in irrigation rates, the Club's operation costs would rise significantly, which would be borne by the Club's.

Without water for irrigation, the Club could not continue its operations, and the corresponding benefits provided by the Club to the community – the recreational opportunities, the aesthetic

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impacts of maintaining a green course, as well as the increase in real estate values realized by homeowners within the community due to the proximity and availability of the Club – would cease. A rate increase that undermines the Club's ability to operate profitably not only might deprive the Anthem community of these benefits, but might further disrupt the unstable real estate market in the community, where many homes are already in foreclosure proceedings.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY REGARDING ALL ISSUES OTHER THAN RATE DESIGN?

A. Yes.

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Copy of the foregoing served,
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Dated: February 19, 2010

Maria I. Klachko-Blair

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April 12, 2010

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VIA FEDERAL EXPRESS

Docket Control
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Phoenix, AZ 85009

RE: In the Matter of the Application of Arizona-American Water Company
Docket Nos.: W-01303A-09-0343 and SW-01303A-09-0343

Please find enclosed the original and 14 copies of the following document for filing:

1. Notice of Errata.

Once the document has been filed, please send back a conformed copy to our office in the enclosed prepaid, self-addressed envelope.

If you require anything further, please contact me at the number indicated above.

Sincerely,

April Robitaille
Legal Assistant

Enclosure

SB 541963 v1:098000.0015

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Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT	DOCKET NO. SW-01303A-09-0343

NOTICE OF ERRATA

On February 22, 2010, the Anthem Golf and Country Club filed the Direct Testimony Regarding Issues other than Rate Structure of Desi Howe, on Behalf of Anthem Golf and Country Club ("Direct Testimony"). The Direct Testimony was erroneously dated February 22, 2009, and should have been dated February 22, 2010. Additionally, words were inadvertently left out of the

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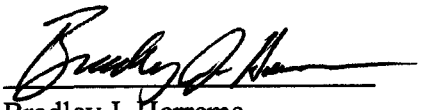
testimony, requiring the following correction: the sentence on page 5, lines 24-26, should be corrected to read "Unfortunately, if the Commission grants the proposed increase in irrigation rates, the Club's operation costs would rise significantly, which increased costs would be borne by the Club and its members."

DATED: April 12, 2010

By: 

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Attorneys for DMB White Tank, LLC

Dated: April 12, 2010

April Robitaille

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Memorandum

Via Federal Express

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EXHIBIT
AGCC-2
ADMITTED

DATE: April 30, 2010

TO: Docket Control
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85007

FROM: April Robitaille, Asst. to Bradley J. Herrema

RE: In the Matter of the Application of Arizona-American Water Company
Docket Nos. W-01303A-09-0343 and SW-01303A-09-0343

Enclosed is an original and 14 copies of our Notice of Filing Direct Testimony of Desi Howe. Please conform one of the ~~copies~~, and return it to us in the envelope provided. Thank you for your consideration. face page

:gml
Enclosures

SB 543955 v1:098000.0015

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IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
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ANTHEM GOLF AND COUNTRY CLUB'S NOTICE OF FILING DIRECT TESTIMONY REGARDING RATE STRUCTURE AND RATE CONSOLIDATION

The Anthem Golf and Country Club hereby files the Direct Testimony Regarding Rate Structure and Rate Consolidation of Desi Howe.

BROWNSTEIN HYATT FARBER SCHRECK, LLP
21 East Carrillo Street
Santa Barbara, CA 93101

RESPECTFULLY SUBMITTED this 30th day of April 2010.

By:

Bradley J. Herrema
Brownstein Hyatt Farber Schreck, LLP

BROWNSTEIN HYATT FARBER SCHRECK, LLP
21 East Carrillo Street
Santa Barbara, CA 93101

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Dated: April 30, 2010

April Robitaille

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BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES
Chairman

GARY PIERCE
Commissioner

PAUL NEWMAN
Commissioner

SANDRA D. KENNEDY
Commissioner

BOB STUMP
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
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DIRECT TESTIMONY
REGARDING RATE STRUCTURE AND RATE CONSOLIDATION
OF
DESI HOWE
ON BEHALF OF
ANTHEM GOLF AND COUNTRY CLUB
MAY 3, 2010

EXECUTIVE SUMMARY

Desi Howe testifies that:

The Club receives water for irrigation purposes from the Company pursuant to its Anthem Water District Non-Potable Irrigation Rate. The present rate is $1.43/1,000 gallons and the Company is proposing an increase of roughly 79% to $2.5648/1,000 gallons. The Company is not proposing rate design changes at the district level, and has not prepared a cost of service study for this case, but allocated requested revenue requirement increases by district pro-rata to each customer class/tariff for that district. Since it has not submitted a new cost of service study, the Company has indicated that it will accept any party's use of cost of service data from the previous rate case for each district.

The present and proposed rate structure in the Anthem Water District disproportionately allocates the costs of service to Non-Potable Irrigation Rate customers. This does not achieve either of the objectives of having rates represent costs of service or inducing water conservation. The Club's water use is dictated by limits set by the Arizona Department of Water Resources and the weather. The Club is already incentivized to use as little water as possible, as a means of reducing its own irrigation costs, which represent the Club's largest operating utility expense.

The Club does not take a position on rate consolidation, but defers to the Commission's discretion as to whether consolidation should be ordered in this case. The Club is interested in additional detail on any Company proposal that would limit the increase in the Non-Potable Irrigation Rate. If the Company proposes to establish a statewide framework for non-potable rates in conjunction with the recommendations of the Arizona blue ribbon panel on water sustainability, a more concrete proposal should be addressed in its May 14, 2010 testimony.

BROWNSTEIN HYATT FARBER SCHRECK, LLP
21 East Carrillo Street
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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Charles Desmond "Desi" Howe, Jr. My business address is 2708 W. Anthem Club Drive, Anthem, Arizona 85086, and my business phone is 623-742-6201.

Q. ARE YOU THE SAME DESI HOWE THAT SUBMITTED DIRECT TESTIMONY REGARDING ISSUES OTHER THAN RATE STRUCTURE ON BEHALF OF ANTHEM GOLF AND COUNTRY CLUB IN THIS CASE ON FEBRUARY 22, 2010?

A. Yes.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY REGARDING RATE DESIGN AND RATE CONSOLIDATION IN THIS CASE?

A. On February 22, 2010, I submitted testimony regarding the Anthem Golf and Country Club's (the "Club's") use of water received from Arizona-American Water Company (the "Company") for its irrigation purposes, and to outline the potential impacts of the proposed rate increase on the Club. This testimony is intended to describe the proposed rate structure for the Club's rates and present the Club's position regarding rate design and rate consolidation. For a summary of my testimony, please see the preceding Executive Summary.

III. THE COMPANY'S PROPOSED RATE STRUCTURE

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED RATE STRUCTURE FOR THE CLUB'S WATER RATES.

A. As described in my February 22, 2010 testimony, the Club receives water for irrigation purposes from the Company pursuant to its Anthem Water District Non-Potable Irrigation Rate. (Howe, Page 4, lines 19-23.) The present rate is $1.43/1,000 gallons. In the present rate case, the Company initially requested a 104.22% increase among all rates in the Anthem District (Gutowski

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Santa Barbara, CA 93101

Schedule H-3, Page 1.) In response to Staff's rebuttal testimony, the Company has agreed to reduce its requested rate increase for the Anthem District to a rate of $2.5648/1,000 gallons, which would constitute a roughly 79% increase.

As described in the Revised Direct Testimony of Thomas M. Broderick, in this rate case the Company is not proposing rate design changes at the district level, and has not prepared a cost of service study for this case. (Broderick Revised Direct, Page 8, lines 3-5.) The Company has allocated requested revenue requirement increases by district pro-rata to each customer class/tariff for that district. Since it has not submitted a new cost of service study, the Company has indicated that it accepts any party's use of the cost of service data from the previous rate case for each district for purposes of supporting rate design proposals in this case. (Broderick Revised Direct, Page 8, lines 6-8.)

Q. WHAT IS THE CLUB'S POSITION ON THE COMPANY'S PROPOSED RATE STRUCTURE FOR THE ANTHEM WATER DISTRICT?

A. In the previous rate case for the Anthem Water District (Docket No. WS-01303A-03-04043), the Club filed comments on the Anthem Water District's rate structures as proposed (March 27, 2008 Comments of Desi Howe) and comments on the Recommended Opinion & Order (May 21, 2008 Comments of Desi Howe) (collectively, the "2008 Comments"). In its 2008 Comments, the Club detailed its concerns with the rate structure in the Anthem Water District, including that the rate did not achieve the Company's stated goals, as it disproportionately burdened Non-Potable Irrigation Rate customers relative to the cost of service described in the Company's cost-of-service study for the Anthem Rate District.

The Club also commented that it did not agree with the Company's testimony that the setting of an irrigation rate significantly higher than that required to recover the costs of service would "promote its efficient use while remaining competitive with alternatives", nor did it agree with the Recommended Opinion & Order that this disproportionate burden would "promote conservation." The Club also took exception to the use of this cost-shifting mechanism that would "mitigate the revenue increase for other customers" while one of the Company's stated goals in designing rates in the Anthem Water District was to "steadily move toward cost-based rates while

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treating customers equitably." The 2008 Comments are attached hereto as Exhibit AGCC-1 and the concerns the Club expressed in those comments are reiterated below.

Q. WILL THE COMPANY'S PROPOSED NON-POTABLE IRRIGATION RATE STRUCTURE RESULT IN GREATER WATER CONSERVATION BY THE CLUB?

A. No. The Club does not require any additional incentives toward efficient use or water conservation. The Club's water use for irrigation is already limited by many factors. Initially, the Club, as an industrial turf irrigator within the Phoenix Active Management Area, is limited by a prescribed conservation allotment as to the amount of water that may be used to irrigate the Club's courses. Secondly, the Club is not able to significantly reduce its irrigation water consumption. The Club has already taken steps to minimize its water use through the implementation of efficient irrigation technology. While the Club has taken these steps to minimize use, its irrigation water use is to a large extent out of its control, as the primary variable affecting it – the weather – is out of the Club's control.

Finally, as described in my March 22, 2010 Testimony, irrigation water is the largest component of the Club's utilities budget. (Howe, Page 5, lines 21-26.) For this reason, the Club already has sufficient incentive to minimize its water use – as a means of minimizing its own operating costs. The irrigation rate increases proposed by the Company will not have the effect of decreasing the Club's irrigation water use, but only the effect of increasing its irrigation costs.

Q. IS THE CLUB OTHERWISE CONCERNED THAT THE PROPOSED NON-POTABLE IRRIGAITON RATE GREATLEY EXCEEDS THE COST OF SERVICE?

A. Yes. Based on the Company's proposed maintenance of the existing rate structure, the proposed rate structure will maintain the disproportionate burden on non-potable irrigation customers of carrying the Anthem District's costs of service. The primary component of the irrigation water delivered to the Club is treated wastewater effluent. This supply exists independent of irrigators' needs for it. It is a constant supply, based on its origination from the hardened demand of interior water use within Anthem. The infrastructure needed to treat wastewater within the Anthem Community is necessary regardless of the Club's irrigation use with the treated effluent. If

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the Club did not use the treated wastewater effluent, the Company would have to pay to have the water transferred to another location for storage and recovery before it could be put to use. The Club's use of reclaimed water for irrigation purposes does a service to the community and the Anthem/Agua Fria Wastewater System by providing one mechanism for the safe disposition of the community's wastewater.

The Club is also concerned as to the allocation of effluent costs as between Non-Potable Irrigation Rate customers and the extent to which these may overlap with wastewater treatment costs being recovered through wastewater rates. It is unclear to the Club why in the Anthem District effluent is sold by the Water District, when it is generated by the Wastewater District, when other Company Wastewater Districts, such as the Mohave Wastewater District, have a separate "effluent tariff."

V. RATE CONSOLIDATION

Q. DOES THE CLUB TAKE A POSITION REGARDING RATE CONSOLIDATION?

A. No. The Club defers to the Commission's discretion as to whether consolidation should be ordered in this case.

Q. WHAT IS THE CLUB'S POSITION ON THE INCORPORATION OF THE RECOMMENDATIONS OF ARIZONA'S BLUE RIBBON PANEL ON WATER SUSTAINABILITY?

A. Prior to the inclusion of the concept in the April 7, 2010 Rebuttal Testimony of Thomas M. Broderick (Broderick, Pages 15-16), the Club was unaware that the Company intended to propose the use of such a mechanism as part of the present rate case. Initially, the Club is interested in any proposal by the Company that would result in a reduction in the requested increase in the Non-Potable Irrigation Rate. However, the Club questions whether setting rates in order to incentivize use of non-potable supplies would accomplish that goal within the Anthem District, as the District is plumbed to allow extensive effluent use and the only water supplies available to the Course are non-potable supplies. If the Company wishes to consider the implementation of such a mechanism, a more concrete proposal should be addressed in its May 14, 2010 testimony.

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IV. CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY REGARDING RATE DESIGN AND RATE CONSOLIDATION?

A. Yes.

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Santa Barbara, CA 93101

Exhibit AGCC-1

WS-01303A-06-0403 ORIGINAL

ARIZONA CORPORATION COMMIS

UTILITY COMPLAINT FORM

47CO

Investigator: Trish Meeter **Phone:** [redacted] **Fax:** [redacted]

Priority: Respond Within Five Days

Opinion No. 2008 67078 **Date:** 3/13/2008

Complaint Description: 08A Rate Case Items - Opposed
N/A Not Applicable

	First:	Last:
Complaint By:	Desi	Howe

Account Name: Anthem Golf & Country Club **Home:** (000) 000-0000

Street: [redacted] **Work:**

City: [redacted] **CBR:** [redacted]

State: AZ **Zip:** [redacted] **Is:** Business

RECEIVED
2008 MAR 17 P 4:43
AZ CORP COMMISSION
DOCKET CONTROL

Utility Company. Arizona - American Water Company

Division: Water

Contact Name: [redacted] **Contact Phone:** [redacted]

Commission
DOCKETED
MAR 17 2008
DOCKETED BY nr

Nature of Complaint:

3/12 xxxxxx DOCKET NO. WS-01303A-06-0403 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

RE: Docket No. WS-01303A-03-0403

Pursuant to the Administrative Law Judge's October 5, 2006 Procedural Order in the above referenced rate proceeding, the Anthem Golf and Country Club (the "Club") submits the following comments in regard to the Arizona American Water Company's (AAWC) requested rate increases. The Club objects to AAWC's proposed increase in its irrigation rate. The requested 130% increase in the irrigation rate would result in an increase in the Club's annual bills on the order of hundreds of thousands of dollars and would disproportionately burden irrigation customers.
The Club

The Club is a 36-hole championship golf course, consisting of the Ironwood and Persimmon 18- hole courses. Tucked into the quiet beauty of the high Sonoran desert foothills, the unique hillside setting provides extraordinary mountainous views. In addition to the 36 holes of golf, the Club features two clubhouses, tennis courts, pools, spa services, formal and casual dining, golf shops, locker rooms, and fitness facilities.

The Club currently has 602 memberships providing golf privileges to the Club's courses. Additionally, each of the over 2800 lot owners within the Anthem Community are considered social members of the Club and have membership privileges to the Club's social and fitness facilities, and reduced greens fees for use of the Club's courses.

The Club maintains the courses through irrigation with reclaimed water provided by AAWC subject to its irrigation rate, The Ironwood and Persimmon courses are permitted to be irrigated with reclaimed water, pursuant to two Arizona Department of Environmental Quality reclaimed water permits. Based on the Anthem Community's location and a Maricopa County ordinance precluding the Club's extraction of groundwater for

ARIZONA CORPORATION COMMISSION

UTILITY COMPLAINT FORM

irrigation purposes, AAWC represents the Club's sole irrigation water supply.

Impact of Proposed Rate Increase

AAWC's irrigation rate under its present tariff provides a commodity rate of$ 0.62 per 1,000 gallons. In the current proceeding, while backing down from its initially requested 200 % increase in irrigation rates, AAWC continues to request an increase of over 130% in the irrigation rate - to $1.43 per thousand gallons.

The Club's irrigation water supply is its lifeblood. Without water for irrigation, the Club could not continue its operations, and the corresponding benefits provided by the Club to the Community- the recreational opportunities, the aesthetic impacts of maintaining a green course, as well as the increase in real estate values realized by homeowners witbin the Community due to the proximity and availability of the Club- would cease. A rate increase that undermines the Club's ability to operate profitably not only might deprive the Anthem community of these
benefits, but might further disrupt the unstable real estate market in the community, where many homes are already in foreclosure proceedings.

In 2007, the two 18 hole courses used approximately 400,000 thousand gallons of irrigation water delivered byAAWC, representing ever $265,000 in annual water bills. This is the largest component of the Club's annual utilities budget - over one third - and under AAWC's proposed rate increases, in a year like 2007, these costs would rise to over $600,000. This almost $350,000 increase would raise the Club's irrigation water costs from one third to almost 75% of its annual utilities budget.

AAWC has justified its rate increases, in part, as representing the true cost of the services provided to its water and wastewater customers. The Club's membership rates arc similarly structured in order to take into account the costs of the Club's operation. Unfortunately, if the Commission grants the proposed increase in irrigation rates, the Club's operation costs would rise significantly, requiring the Club to similarly raise its members' dues.

Equity of Proposed Irrigation Rate Increase

AAWC's proposed increase in its irrigation rate is greater proportionately than the increase proposed for any other class of water customers. AAWC supports its rate design through the testimony of Charles Loy. Mr. Loy's testimony justifies the disproportionate irrigation rate increase based on the goals identified in his written direct testimony, including:

"Set irrigation rates significantly higher to promote its efficient use while remaining competitive with alternatives"; and

"Steadily move toward cost-based rates while treating customers equitably."

(Direct Testimony of Charles boy, September 26,2006, p. 7.) It is the Club's view that AAWC's proposed increases in irrigation rates will not accomplish either of these goals.

The Club does not require any additional incentives toward efficient use or water conservation-as described above, its largest utility cost operating cost is its water usage. The Club is already incentivized to minimize its water use - as a means of minimizing its costs. In order to minimize its water use, the Club utilizes water efficient irrigation technology. And, while Mr. Loy justifies the disproportionate increase to be borne by irrigation customers based on their use being more elastic than that of other classes of customers (Direct Testimony of Charles boy, September 26, 2007, p. 10), this is not the case as the primary variable affecting its water use - the weather - is out of its control. The irrigation rate increases proposed by AAWC will not have the effect of decreasing the Club's irrigation water use, but only the effect of raising its irrigation costs.

While Mr. Loy states that one of the goals for his rate design was to move toward cost-based rates while treating customers equitably, his testimony demonstrates that irrigation customers are being asked to bear a disproportionate share of the proposed move toward cost-based rates. While AAWC has asked to increase residential water rates less than necessary to reflect its costs of residential service, AAWC would raise irrigation

ARIZONA CORPORATION COMMISSION

UTILITY COMPLAINT FORM

water rates to almost twice the cost of service. AAWC has requested a 130% increase in irrigation rates while the cost of service study relied upon by Mr. Loy indicates a rate increase of only 46% would bring AAWC's irrigation rate into equilibrium with its costs of providing irrigation water. (Direct Testimony of Charles Loy, September 26, 2006, p. 8; Exhibit CEL-1.)

Mr. Loy states that this almost 300% difference is fair, based on the "significant costs and resources associated with the delivery of water that is ultimately used for irrigation purposes." (Direct Testimony of Charles Loy, September 26, 2006, p. 9.) As Mr. Loy states, the primary component of the irrigation water delivered to the Club is treated wastewater effluent. This is water that is already being delivered to the community for residential or commercial use, and there is no additional infrastructure necessary to deliver it to the Community -the reclaimed water is simply water that has already served its initial purpose that is being reused. Every gallon of reclaimed water put to use by the Club for irrigation purposes is one additional gallon of potable water available to AAWC's customers for other purposes. The infrastructure needed to treat wastewater within the Anthem Community is necessary regardless of the Club's irrigation use with the treated effluent, and while the Club may not pay a portion of those infrastructure and treatment costs as part of its irrigation rate, it does pay those costs through its own wastewater rates associated with the Club's clubhouses, fitness facilities, maintenance buildings and golf course restrooms.

Mr. Loy's testimony's discussion of the rates charged by other reclaimed water suppliers within the State is not relevant to the present proceedings. As the Commission is aware, the Anthem Community is an isolated community and the Club must rely on AAWC's Anthem system for its water supplies. The Club's use of reclaimed water for irrigation purposes does a service to the community and the AntbemlAgua Fria Wastewater System by providing a means for the safe disposition of the community's wastewater.

Conclusion

The Club asks that the Commission consider these comments in its ruling on irrigation water rate increases proposed by AAWC in this proceeding. These rate increases will disproportionately burden irrigation users with those claimed costs of service that AAWC wishes to pass through to its ratepayers. Though not discussed in these comments. the agreements underlying AAWC's costs have never been approved by the Commission and AAWC's costs could have been more fairly recouped through AAWC's ex ante determination of a rate increase schedule approved by the Commission. The rate increases requested by AAWC would constitute the type of rate shock disfavored by the Commission - increasing the Club's irrigation costs by hundreds of thousands of dollars annually. While any rate increase will substantially impact the Club's operating costs, the Club believes the Commission Staff's proposed rate increase to $0.88 per thousand gallons to be more reasonable.

Should you have any questions on comments, please feel free to contact me.

Desi Howe
Regional Manager
End of Complaint

Utilities' Response:

Investigator's Comments and Disposition:

Letter to customer:

March 14, 2008

RE: ARIZONA AMERICAN WATER

ARIZONA CORPORATION COMMISSION

UTILITY COMPLAINT FORM

Dear Mr. Howe,

Your letter on behalf of Anthem Golf & Country Club regarding the Arizona American Water ("AAW") rate case will be placed on file with the Docket Control Center of the Arizona Corporation Commission ("Commission") to be made part of the record. The Commission will consider your comments before a decision is rendered in the AAW application.

The concerns raised in letters received from customers will assist the Commission in the investigation and review of the rate application. The Commission's independent analysis of the utility and its rate request attempts to balance the interest of the utility and its customers.

Commission Staff is very sensitive to the burden that high utility rates can place on the consumer, and though constitutionally required to allow a fair return to the utility, does everything within its authority to protect the consumer.

Staff appreciates your comments and the interest taken on the proposed rate increase. If you should have any questions relating to this issue, please call me toll free at (800) 222-7000.

Sincerely,

Trish Meeter
Consumer Service Analyst
Utilities Division
End of Comments

Date Completed: 3/14/2008

Opinion No. **2008 - 67078**

OPEN MEETING AGENDA ITEM

ORIGINAL

Arizona Corporation Commission
Docket Control
1200 West Washington Street
Phoenix, Arizona 85007-2927

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2008 MAY 21 P 2: 24

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Arizona Corporation Commission
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MAY 21 2008

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anthem GOLF & COUNTRY CLUB

RE: Comments of Anthem Golf and Country Club on Recommended Opinion & Order
Docket No. WS-01303A-06-0403

The Anthem Golf and Country Club (the "Club") submits the following comments regarding the Administrative Law Judge's Recommended Opinion & Order ("ROO") in the above-captioned proceeding. The Club maintains its 36-hole championship golf course through irrigation with reclaimed water provided by the Arizona American Water Company (AAWC) subject to its irrigation rate. Based on the Anthem Community's location and a Maricopa County ordinance precluding the Club's extraction of groundwater for irrigation purposes, AAWC represents the Club's sole source of irrigation water supply.

Comments were previously submitted by the Club (docketed March 17, 2008) in this proceeding, objecting to AAWC's requested irrigation rate increase, based on its disproportionate burden on irrigation customers ("March 17 Comments"). Those comments are incorporated herein by reference.

The ROO would Increase AAWC's Irrigation Rate by 131%

Initially, the ROO incorrectly describes its recommended increase in irrigation rates. The ROO recommends an increase in AAWC's irrigation rate from $0.88 per 1,000 gallons to $1.43. (ROO, 13:15-17.) However, AAWC's current tariff includes an irrigation rate of $0.62 per 1,000 gallons. (http://www.cc.state.az.us/Divisions/Utilities/Tariff/anthem_water_tariffs.pdf.) Increasing the irrigation rate to $1.43 is a 131% increase, not the 63% increase indicated in the Recommended Option – a substantial difference. The ROO should be corrected in order to accurately describe the impact of its recommendations on AAWC's irrigation customers.

The ROO's Irrigation Rate Increase is Not Reasonable

As mentioned above, the ROO finds the 63% increase in AAWC's irrigation rate from $0.88 per 1,000 gallons to $1.43 per 1,000 gallons to be reasonable. It should again be pointed out, however, that the increase to $1.43 per 1,000 gallons is actually a 131% increase in AAWC's irrigation rate. The ROO recommends the increase in the irrigation rate on the basis that it will "promote conservation and mitigate the revenue increase for other customers." (ROO, 13: 15-17.) This finding, and the recommendation for adoption on that basis, is unsupported in the ROO and the Club believes such an increase to be unreasonable, in light of the following:

- As described in the March 17 Comments, irrigation customers, such as the Club, have pre-existing incentives to minimize water use, and an increased water rate will not create any greater incentive to conserve water. The Club's water demands are relatively consistent, with the primary variable affecting its water use from year to year being the weather, which is outside the Club's control. As the Club's irrigation costs are the largest

component of its utilities budget, the Club is already incentivized to minimize its water use to whatever extent it is able. Assuming that the recommended increased irrigation rate becomes effective June 1, 2008, the Club's projected irrigation water costs will increase over $245,000 during the final seven months of 2008. Using an average year's projected irrigation water use, the 131% increase in irrigation rates would result in an increase of almost $350,000 in the Club's annual irrigation water costs. The ROO's proposed 131% increase in irrigation rates will not have the effect of reducing the Club's irrigation water use, but only the effect of raising its irrigation costs.

- The majority of the water provided to AAWC's irrigation customers is treated wastewater. This supply exists independent of irrigators' needs for it. It is a constant supply, based on its origination from the hardened demand of interior water use within the Anthem Community. Irrigation use of this treated wastewater provides the community with a convenient mechanism for its disposition, and the Club's use of treated wastewater in lieu of potable water frees that potable water for use elsewhere in the community.

- The proposed 131% increase in AAWC's irrigation rate disproportionately burdens irrigation customers with AAWC's revenue increase. (See ROO, [irrigation rate increase will "mitigate the revenue increase for other customers."].) AAWC's own expert, Charles Loy, acknowledged this in his testimony, where he stated that only a 46% increase in irrigation rates was necessary to bring the rate into equilibrium with the cost of providing the service.

The ROO provides no support for its finding that the recommended 131% increase in irrigation rates is reasonable in light of these facts. The Club asks that the Commission, in adopting an order in these proceedings, address these issues. Should you have any questions on comments, please feel free to contact me.

Desi Howe
Regional Manager

CC: Mike Gleason, Commission Chairman
William A. Mundell, Commissioner
Jeff Hatch-Miller, Commissioner
Kristin K. Mayes, Commissioner
Gary Pierce, Commissioner

SB 467163 v2:098000.0015

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

EXHIBIT
Anthem-13
ADMITTED

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT.	)	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT	)	DOCKET NO. SW-01303A-09-0343 ANTHEM COMMUNITY COUNCIL'S NOTICE OF FILING OF DIRECT TESTIMONY OF MICHAEL L. ARNDT

By means of this submittal, the Anthem Community Council hereby provides notice of its filing of Direct Testimony of Michael L. Arndt.

Dated this 17th day of May 2010.

Respectfully submitted,

Judith M. Dworkin
Sacks Tierney PA

4250 North Drinkwater Blvd., 4th Floor
Scottsdale, Arizona 85251-3693

and

Lawrence V. Robertson, Jr.
P. O. Box 1448
Tubac, Arizona 85646-1448

By: _____
Lawrence V. Robertson, Jr.
Attorneys for Anthem Community Council

The original and thirteen (13) copies of the foregoing Notice are being emailed/mailed this 17th day of May 2010 to:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

A copy of the foregoing Notice is being mailed or emailed this same date to:

Teena Wolfe, Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

All parties of record

_____

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT	DOCKET NO. WS-01303A-09-0343

DIRECT TESTIMONY OF
MICHAEL L. ARNDT

ON BEHALF OF
THE ANTHEM COMMUNITY COUNCIL

May 17, 2010

Q.1 PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A.1 My name is Michael L. Arndt. I am a public utility rate consultant and my address is 3602 S.W. Zona Circle, Ankeny, Iowa 50023.

Q.2 HAVE YOU PROVIDED AN ATTACHMENT WHICH DETAILS YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE?

A.2 Yes. Attached Appendix A is a statement of my education and experience.

Q.3 HAVE YOU TESTIFIED BEFORE THIS COMMISSION PREVIOUSLY?

A.3 Yes. In addition to the Arizona Corporation Commission ("ACC" or "Commission"), I have presented testimony before the Federal Energy Regulatory Commission and state regulatory commissions in Alabama, Arkansas, Colorado, Iowa, Maryland, Nebraska, Oklahoma, Pennsylvania, Rhode Island, Texas, Utah, Vermont and West Virginia. In addition, I have worked on cases in several other states, the District of Columbia and Barbados. I have testified in more than 100 public utility rate proceedings.

Q.4 ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A.4 I am appearing on behalf of the Anthem Community Council ("Anthem"). Anthem has intervened in this proceeding on behalf of over 8,800 of its residents that are water and wastewater customers of Arizona American Water Company ("AAWC" or "Company").

LAWRENCE V. ROBERTSON, JR.
ATTORNEY AT LAW
P.O. Box 1448
Tubac, Arizona 85646
(520) 398-0411

Q.5 WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A.5 The purpose of my testimony is to address the concerns expressed by Company witness James M. Jenkins regarding Anthem witness Mr. Dan L. Neidlinger's ratable plant transfer proposal.

Q.6 PLEASE DESCRIBE THE COMPANY.

A.6 The Company is a wholly-owned subsidiary of American Water Corporation ("AWC"). AWC is headquartered in Voorhees, New Jersey, and is the largest investor-owned water and wastewater utility company in the United States. AWC is the parent company for nineteen state subsidiaries (i.e., including Arizona-American Water Company).[1] AWC serves approximately 16,000,000 people in approximately 1,600 communities in the United States and Manitoba and Ontario, Canada. In 2009, American Water Corporation reported total revenues of $2,445,000,000 and total net plant of $10,500,000,000.[2]

Q.7 HAVE YOU REVIEWED THE PRE-FILED DIRECT TESTIMONY OF ANTHEM WITNESS DAN L. NEIDLINGER FILED ON MARCH 8, 2010 AND ON MAY 3, 2010?

A.7 Yes.

LAWRENCE V. ROBERTSON, JR.
ATTORNEY AT LAW
P.O. Box 1448
Tubac, Arizona 85646
(520) 398-0411

[1] American Water Corporation's wholly-owned regulated water and wastewater subsidiaries include Arizona American Water, California American Water, Hawaii American Water, Illinois American Water, Indiana American Water, Iowa American Water, Kentucky American Water, Long Island American Water, Maryland American Water, Michigan American Water, New Jersey American Water, New Mexico American Water, Ohio American Water, Pennsylvania American Water, Tennessee American Water, Texas American Water, Virginia American Water and West Virginia American Water. Tennessee American Water provides water service to part of northern Georgia.

[2] American Water Corporation website and Value Line, January 22, 2010, page 1793.

Q.8 PLEASE SUMMARIZE YOUR UNDERSTANDING OF MR. NEIDLINGER'S PHASE-IN PROPOSAL.

A.8 Mr. Neidlinger's testimony addresses the "rate shock" issue related to the requested water and wastewater increases for the Company's Anthem District. The Company has proposed major increases in its water and wastewater rates based on a calendar 2008 test year. For the Anthem District, the Company's requests will result in substantial increases in average residential water and average residential wastewater bills.

The Company's proposed rate increases in this case are due in large part to the refunding of $20.2 million of Advances In Aid of Construction ("AIAC") to Pulte Homes in March 2008.[3]

Anthem witness Neidlinger proposes to mitigate the rate shock of the Company's proposed increases by deferring the ratemaking recognition of the water and wastewater net plant associated with the 2008 Pulte refund of $20.2 million. Mr. Neidlinger proposes that the "deferred" amounts be transferred into plant in service ratably over the five year period of 2009 through 2013. In addition, Mr. Neidlinger suggests the same treatment would be appropriate for a $6.7 million payment made to Pulte in March 2010, with a ratable plant transfer over the years 2011 through 2015, but that amount is outside the test period in this case.

Q.9 HAVE YOU REVIEWED THE PRE-FILED TESTIMONY OF COMPANY WITNESS JAMES M. JENKINS FILED ON MAY 7, 2010?

A.9 Yes.

[3] The $20.2 million ACAC refund to Pulte Homes in March 2008 relates to $14.9 million of water utility plant and $5.3 million to wastewater utility plant. Mr. Neidlinger's Direct Testimony, page 5, lines 9-11.

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Q.10 PLEASE SUMMARIZE YOUR UNDERSTANDING OF MR. JENKINS' TESTIMONY.

A.10 Mr. Jenkins opposes Anthem witness Neidlinger's proposal to ratably defer ratemaking recognition of the water and wastewater net plant associated with the 2008 Pulte refund Mr. Jenkins argues that Anthem's proposed ratable plant transfer plan would require the Company to report a loss for financial reporting purposes.

Q.11 WHAT IS THE BASIS FOR MR. JENKINS' OPPOSITION TO ANTHEM'S PHASE-IN PLAN?

A.11 Mr. Jenkins argues that Anthem's ratable plant transfer plan does not comply with the Financial Accounting Standards Board's ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 92, Regulated Enterprises—Accounting for Phase-In Plans.[4]

Q.12 BEFORE ADDRESSING SFAS 92, PLEASE DESCRIBE THE FINANCIAL ACCOUNTING STANDARDS BOARD.

A.12 The Financial Accounting Standards Board is a private, not-for-profit organization whose primary purpose is to develop generally accepted accounting principles ("GAAP") within the United States. FASB was created in 1973 and replaced the Committee on Accounting Procedure ("CAP") and the Accounting Principles Board ("APB").

[4] SFAS 92 is currently referred to as Accounting Standards Codification ("ASC") 980-340. The Accounting Standards Codification became effective for interim and annual periods ending after September 15, 2009.

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Q.13 DO YOU AGREE THAT FASB'S SFAS 92 PRECLUDES COMMISSION ADOPTION OF ANTHEM'S PROPOSED RATABLE PLANT TRANSFER PLAN IN THIS RATE CASE?

A.13 No. FASB's SFAS 92 was issued in August 1987 and relates to phase-in plans concerning plant completed before January 1, 1988 and plants on which substantial physical construction had been performed before January 1, 1988. In addition, SFAS 92 does not address refunds relating to prior AIACs. SFAS 92, therefore, does not apply in this case.

Q.14 WHAT WAS THE PURPOSE OF SFAS 92 WHEN IT WAS ISSUED IN AUGUST 1987?

A.14 SFAS 92 was issued in August 1987 to address the high costs of electric utility power plants which were being placed in service at that time. SFAS 92 states the following:

> The cost of **electric utilities' plants** constructed in recent years has been much greater than the cost of those completed in earlier years, so that, for some utilities, conventional rate-making methods would result in significantly increased rates when a newly completed plant goes into service. In such cases, some regulators have adopted phase-in plans to moderate the initial rate increase. The objective of those plans is to increase rates more gradually than would be the case under conventional rate making, while providing the utility eventual recovery of all of its allowable costs and a return on investment.
>
> FASB Statement No. 71, Accounting for the Effects of Certain Types of Regulation, was issued in December 1982. Shortly after the Statement was issued, major events in the **electric utility industry** caused the Board to review the effects of the Statement on the accounting for those events. After that review, the Board decided to amend Statement 71 to provide more specific guidance on the accounting for some of those events and to change the accounting for others. (Emphasis added)

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Q.15 ARE YOU AWARE OF ANY PRIOR WATER OR WASTEWATER RATE CASES IN THE UNITED STATES WHICH SFAS 92 HAS BEEN USED AS A REASON TO REJECT OR NOT ADOPT A RATABLE PLANT TRANSFER PLAN, SUCH AS PROPOSED BY ANTHEM WITNESS NEIDLINGER?

A.15 No. To my knowledge there have been no such cases or utility commission decisions of that nature.

Q.16 MR. JENKINS ARGUES THAT IF ANTHEM'S PLAN IS ADOPTED, THE COMPANY WOULD HAVE TO REPORT A LOSS FOR FINANCIAL REPORTING PURPOSES. WHAT IS THE INDICATED BASIS FOR MR. JENKINS ARGUMENT IN THAT REGARD?

A.16 Mr. Jenkins argues that SFAS 90, Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs, provides guidance on cost disallowances.[5] Mr. Jenkins states, "When it becomes probable that part of the cost of a recently completed plant will be disallowed for rate-making purposes and a reasonable estimate of the amount of the disallowance can be made, the estimated amount of the probable disallowance shall be deducted from the reported cost of the plant and recognized as a loss."[6] (Emphasis added)

Q.17 WHEN WAS SFAS 90 ISSUED?

A.17 SFAS 90 was issued in December 1986.

[5] SFAS 90 is currently referred to as Accounting Standards Codification 980-360.
[6] Company witness James M. Jenkins, Rebuttal Testimony, page 5, lines 7-10.

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Q.18 WHAT WAS THE PURPOSE OF SFAS 90 WHEN IT WAS ISSUED IN DECEMBER 1986?

A.18 SFAS 90 was issued in December 1986 to address the abandonments of plants and disallowances of costs of electric utility plants. SFAS 90 states the following:

> This Statement amends FASB Statement No. 71, Accounting for the Effects of Certain Types of Regulation, for two types of events that recently have occurred in the **electric utility industry**—abandonments of plants and disallowances of costs of recently completed plants.
>
> FABS Statement No. 71, Accounting for the Effects of Certain Types of Regulation, was issued in December 1982. Shortly after that Statement was issued, major events in the **electric utility industry** caused the Board to review the effects of the Statement on the accounting for those events. After considering the application of the Statement, the Board decided to amend Statement 71 to provide more specific guidance for some of those events and to change the accounting for others. (Emphasis added)

Q.19 ARE YOU AWARE OF ANY PRIOR WATER OR WASTEWATER RATE CASES OR UTILITY COMMISSION DECISIONS IN THE UNITED STATES IN WHICH SFAS 90 HAS BEEN USED TO (1) REJECT A RATABLE PLANT TRANSFER PLAN, SUCH AS PROPOSED BY ANTHEM WITNESS NEIDLINGER; OR (2) TO REQUIRE A WATER OR WASTEWATER UTILITY TO REPORT A LOSS FOR FINANCIAL REPORTING PURPOSES IN CONNECTION WITH SUCH A PLAN?

A.19 No. There is no such cases or decisions to my knowledge.

Q.20 DOES FASB'S SFAS 90 PROHIBIT COMMISSION ADOPTION OF ANTHEM'S RATABLE PLANT TRANSFER PLAN IN THIS RATE CASE?

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A.20 No. FASB's SFAS 90 was issued in December 1986 to address the abandonments of plants and disallowances of costs of electric utility plants. In that regard, SFAS 90 does not address refunds relating to prior AIACs.

In addition, the Water Company has not abandoned any water or wastewater plant in this case; and Anthem's ratable plant transfer proposal does not contemplate or require a disallowance of utility plant. SFAS 90, therefore, does not apply in this case.

Q.21 ASSUMING THE COMMISSION ADOPTS ANTHEM'S PROPOSED PLAN AND THE COMPANY'S PARENT ELECTS FOR WHATEVER REASON TO REPORT SUCH ADOPTION AS SOME "LOSS" FOR FINANCIAL REPORTING PURPOSES, PLEASE COMMENT UPON HOW THAT WOULD BE REFLECTED IN THE FINANCIAL STATEMENTS OF THE COMPANY'S PARENT.

A.21 As noted previously, the Company is a wholly-owned subsidiary of American Water Corporation. AWC is the largest investor-owned water and wastewater utility company in the United States. In 2009, AWC reported total revenues of $2.445 billion and total net plant of $10.500 billion.

If AWC elected to report some type of "loss" for financial reporting purposes in its consolidated financial statements related to a Commission adoption of Anthem's ratable plant transfer plan in the Company's current case, AWC would fully disclose the "loss" for financial reporting purposes in its notes to its consolidated financial statements. Such a disclosure would explain that the Commission had approved or adopted the plan in order to mitigate rate shock which would otherwise occur. The

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notes would (1) explain the contemplated deferred ratemaking recognition of certain water and wastewater net plant costs associated with the 2008 Pulte refund; and (2) inform investors that these costs would be recovered in future rate cases involving the Company. If properly reported, the notes would not suggest that the Commission had "disallowed" the 2008 $20.2 million refund payment to Pulte Homes, nor would the plant be characterized as "abandoned."

Q.22 DO YOU HAVE ANY ADDITIONAL COMMENTS CONCERNING ANTHEM'S PROPOSAL TO DEFER THE RATEMAKING RECOGNITION OF CERTAIN WATER AND WASTEWATER NET PLANT COSTS ASSOCIATED WITH THE 2008 PULTE REFUND?

A.22 Yes. The Company's $20.2 million in AIAC payments to Pulte Homes during the 2008 test year in this case represents an abnormal and extraordinary event which needs to be addressed for ratemaking purposes. The Company has requested very substantial increases in water rates and wastewater rates based on a calendar 2008 test year. These increases are particularly large for the Anthem water and wastewater ratepayers. Against that background, Mr. Neidlinger developed the proposed ratable plant transfer plan to mitigate that rate shock which Anthem customers will experience.

In that regard, I also believe that rate shock should be a primary concern for the Commission in this case, particularly given the current economic conditions. Anthem's plan properly addresses and mitigates the problem of rate shock.

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Q.23 DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?

A.23 Yes, it does.

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STATEMENT OF EDUCATION AND EXPERIENCE

MICHAEL L. ARNDT

Arndt & Associates
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Ankeny, Iowa 50023
(515) 964-8902

Mr. Arndt received a Bachelor of Arts degree in Business Administration from Northwestern College in 1974 and a Master of Business Administration degree from Drake University in 1978. He has also taken additional graduate level courses in accounting, auditing, economics, finance and taxation at the University of Maryland. Mr. Arndt is a Certified Public Accountant in Maryland.

Mr. Arndt has attended numerous seminars and training courses related to public utility regulation, income taxes and other issues, including the National Association of Regulatory Utility Commissioners ("NARUC") Annual Regulatory Studies Program at Michigan State University.

Following graduation in 1974, Mr. Arndt was employed by the Utilities Division of the Iowa State Commerce Commission in Des Moines, Iowa. His responsibilities with the Iowa Commission included analyses of cost of service issues and testifying in rate proceedings of electric, gas, telephone and water utilities.

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In 1979, Mr. Arndt joined Hess & Lim, Inc., a public utility consulting firm located in the Washington, D.C. area providing consulting services to a variety of clients including state regulatory commissions, consumer advocate agencies, municipalities and corporations. His responsibilities included performing analyses of utility ratemaking issues and testifying in proceedings before federal and state regulatory commissions on behalf of the firm's clients.

In December 1990, Mr. Arndt formed the public utility consulting firm of Arndt & Associates and has continued performing analyses of utility rate filings and testifying in proceedings on behalf of various clients.

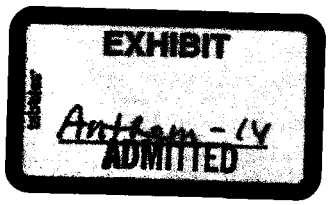
Mr. Arndt has testified in more than 100 public utility rate proceedings before the Federal Energy Regulatory Commission and the state regulatory commissions of Alabama, Arizona, Arkansas, Colorado, Iowa, Maryland, Nebraska, Oklahoma, Pennsylvania, Rhode Island, Texas, Utah, Vermont and West Virginia. In addition, Mr. Arndt has worked on cases in several other states, the District of Columbia and Barbados. His testimony in prior proceedings has involved issues related to the determination of revenue requirements, income taxes, affiliated transactions, depreciation, securitization, excess cost over market ("ECOM"), unbundling, allocations and rate design.

In addition to public utility rate cases, Mr. Arndt has participated in various court proceedings on behalf of clients involving antitrust, Modified Final Judgment ("MFJ") violations, breach of contract, utility property damage and telephone directory cases.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP



IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT.	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT.	DOCKET NO. SW-01303A-09-0343

SUMMARY OF DIRECT TESTIMONY
OF MICHAEL L. ARNDT

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EXECUTIVE SUMMARY – DIRECT TESTIMONY

Michael L. Arndt testifies that:

I am appearing on behalf of the Anthem Community Council ("Anthem"). Anthem has intervened in this proceeding on behalf of over 8,800 of its residents that are water and wastewater customers of Arizona American Water Company ("AAWC" or "Company"). The purpose of my testimony is to address the concerns expressed by Company witness James M. Jenkins regarding Anthem witness Mr. Dan L. Neidlinger's ratable plant transfer proposal.

The Company has proposed major increases in its water and wastewater rates based on a calendar 2008 test year, due in large part to the refunding of $20.2 million of Advances In Aid of Construction ("AIAC") to Pulte Homes in March 2008. The AIAC payments represent an abnormal and extraordinary event which needs to be addressed for ratemaking purposes. However, for Anthem residents, the Company's requests will result in substantial increases in average residential water and average residential wastewater bills. Anthem witness Neidlinger proposes to mitigate the resulting rate shock by deferring the ratemaking recognition of the water and wastewater net plant associated with the 2008 Pulte refund of $20.2 million. Mr. Neidlinger proposes that the "deferred" amounts be transferred into plant in service ratably over the five year period of 2009 through 2013. Neidlinger's plan properly addresses and mitigates the problem of rate shock.

Statement of Financial Accounting Standards.

Company witness Jenkins opposes Neidlinger's proposal because he believes that it would require the Company to report a loss for financial reporting purposes and the plan does not comply with the Financial Accounting Standards Board's ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 92.

However, FASB's SFAS 92 relates to phase-in plans concerning plant completed, or plant on which substantial physical construction had been performed, before January 1, 1988. In addition, SFAS 92 does not address refunds relating to prior AIACs. SFAS 92, therefore, does not apply in this case, and to my knowledge, there have been no prior water or wastewater rate cases or

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utility commission decisions in the United States which SFAS 92 has been used as a reason to reject or decline to adopt a ratable plant transfer plan such as proposed by Neidlinger.

Mr. Jenkins also argues that SFAS 90 provides guidance on cost disallowances. However, SFAS 90 was issued in December 1986 to address the abandonments of plants and disallowances of costs of electric utility plants. In that regard, SFAS 90 does not address refunds relating to prior AIACs. In addition, the Company has not abandoned any water or wastewater plant in this case; and Anthem's ratable plant transfer proposal does not contemplate or require a disallowance of utility plant. SFAS 90, therefore, does not apply in this case, and to my knowledge, there have been no prior water or wastewater rate cases or utility commission decisions in the United States which SFAS 90 has been used as a reason to reject or decline to adopt a ratable plant transfer plan such as proposed by Neidlinger.

Financial Reporting.

The Company is a wholly-owned subsidiary of American Water Corporation ("AWC"). AWC is the largest investor-owned water and wastewater utility company in the United States. AWC is the parent company for nineteen state subsidiaries, including the Company. In 2009, American Water Corporation reported total revenues of $2,445,000,000 and total net plant of $10,500,000,000.

If AWC elected to report some type of "loss" for financial reporting purposes in its consolidated financial statements related to a Commission adoption of Anthem's ratable plant transfer plan in the Company's current case, AWC would fully disclose the "loss" for financial reporting purposes in its notes to its consolidated financial statements. If properly reported, the notes would not suggest that the Commission had "disallowed" the 2008 $20.2 million refund payment to Pulte Homes, nor would the plant be characterized as "abandoned."

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ORIGINAL and fifteen (15) copies of the foregoing filed this 19th day of May, 2010, with:

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COPY of the foregoing mailed this 19th day of May, 2010, to:

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761623

RESPONSES OF ARIZONA-AMERICAN WATER COMPANY
TO ANTHEM COMMUNITY COUNCIL'S NINTH SET OF DATA REQUESTS
W-01303A-09-0343; SW-01303A-09-0343

GENERAL OBJECTIONS TO ALL DATA REQUESTS

1. Arizona-American objects to each Request to the extent it seeks information subject to the attorney-client privilege, work product doctrine or any other privilege recognized by the State of Arizona. In responding to these Requests, Arizona-American preserves all such privileges.

2. Arizona-American objects to each Request to the extent that it is unreasonably burdensome, overly broad and/or not reasonably calculated to lead to the discovery of admissible evidence.

3. Arizona-American objects to each definition and/or instruction to the extent it purports to abrogate any of Arizona-American's rights, or adds to any of Arizona-American's obligations under, the Arizona Rules of Civil Procedure or the Commission's Rules.

4. Arizona-American objects to each Request to the extent that it is overly broad, unduly burdensome and imposes any burden not expressly permitted under the Commission's Rules or the Arizona Rules of Civil Procedure.

5. Arizona-American objects to each Request to the extent that the information requested constitutes "trade secrets" that are privileged under the Arizona Uniform Trade Secrets Act, Ariz. Rev. Stat. § 44-401, et. seq. (2003). To the extent that the Requests seek proprietary, confidential business information that is not the subject of the "trade secrets" privilege, and to the extent such information exists, Arizona-American will make the information available pursuant to the Protective Order issued in this docket.

6. Arizona-American objects to the Requests to the extent they seek information not within Arizona-American's possession, control, or custody and/or to the extent the Requests ask Arizona-American to provide information that it does not maintain in the ordinary course of business.

7. Arizona-American reserves the right to supplement or amend its objections and responses as necessary.

Arizona-American incorporates the foregoing General Objections into each response as if fully set forth therein.

EXHIBIT
Anthem-16
ADMITTED

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.1.

Q. Have any external or internal evaluations or reports been prepared to support the analysis or conclusions reached in the Pre-filed Testimony of James M. Jenkins on behalf of Arizona American Water Company (the "**Company**"), dated May 7, 2009 [sic] (the "**Testimony**")?

A. In addition to the General Objections, Arizona-American specifically objects to this request to the extent it seeks information subject to the attorney-client privilege and/or the work product doctrine. Subject to and without waiving these objections, Arizona-American responds as follows:

Yes.

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.2

Q. Have any written opinions, including external audit opinions, been prepared or relied on to support the analysis and conclusions reached in the Testimony?

A. In addition to the General Objections, Arizona-American specifically objects to this request to the extent it seeks information subject to the attorney-client privilege and/or the work product doctrine. Subject to and without waiving these objections, Arizona-American responds as follows:

No.

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.3

Q Please produce copies of all documents which relate to the information requested by Anthem 9.1 and Anthem 9.2.

A. In addition to the General Objections, Arizona-American specifically objects to this request to the extent it seeks information subject to the attorney-client privilege and/or the work product doctrine. Subject to and without waiving these objections, Arizona-American responds as follows:

In response to Anthem 9.1, please see the attached Confidential internal paper dated April 28, 2010. This was developed to support Mr. Jenkins testimony.

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.4

Q. Please identify each and every individual who was involved with the preparation of the evaluations, reports, opinions, and documents described in Anthem 9.1 and Anthem 9.2.

A Mr. Jenkins was the primary individual responsible for and involved in this preparation. However, in the course of his preparation, he also consulted with the following individuals within the Company:

- Mark Chesla - VP and Controller, American Water Works Company, Inc.
  VP, Corporate Accounting, American Water Works Service Company
- Ed Keiffer - Director Corporate Accounting, American Water Works Service Company
- Beth Scalese – Manager Accounting Standards, American Water Works Service Company
- Sheryl Hubbard – Interim Finance Director, Arizona, New Mexico & Hawaii
- Matthew Soderberg – Manager, Finance, Western Division

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.5

Q. Please identify all assumptions, information and data provided by or at the direction of the Company, or its consultants, to any individual whose identification is requested in Anthem 9.4 for the purposes of preparing or supporting the Testimony.

A. As referenced in the Testimony, the applicable accounting guidance relied upon to support the Testimony was ASC 980. The applicable sections relate to what were formerly SFAS 71, SFAS 90, and SFAS 92. Section 450-20-55 with respect to loss contingencies was also reviewed.

In addition, the testimony/exhibits of Anthem Community Council witness Dan Neidlinger and the financial records of Arizona-American were relied upon to prepare the Testimony.

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.6

Q. Was the prepared direct testimony (and related exhibits) of Dan Neidlinger on March 8, 2010 disclosed to all individuals whose identification is requested by Anthem 9.4?

A. Yes

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.7

Q. Please describe and quantify the impact of each of the following Pulte refunds on audited financial statements of American Water Works Company, Inc. ("**AWWC**"): (a) March 2008 ($20.2M) refund and (b) March 2010 ($6.7M) refund.

A. Under normal circumstances, a payment would be processed as a debit to the customer advance account to reflect the extinguishment of the liability and a credit to a cash account to reflect the disbursement of funds from the Company to Pulte Homes. The accounting for the March 2008 would be included within the 2008 audited financial statements for AWWC. It should be noted, that because the fiscal year 2010 is currently on-going, the March 2010 payment has not been subjected to an external audit, but has been reflected in AWWC's first quarter 10-Q filing.

Further as noted, the above scenario represents the transactions made to satisfy the Company's contractual obligations with Pulte Homes. This scenario does not consider the financial reporting implications of the regulatory treatment of the payments as proposed by Mr. Neidlinger.

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.8

Q. With respect to ASC Topic 980, please produce copies of all reports or analysis prepared by the Company or any consultant related to assumed or known changes in levels of demand or competition during the recovery period for any capitalized costs. In addition, please describe and explain any assumed or known competition which could affect the Company's operations and/or financial performance in any of the Company's water or wastewater districts in the State of Arizona.

A. No such reports exist. As Mr. Townsley has testified, the Company is concerned with its ability to collect its cost of service in Arizona because the Company has consistently operated at a loss since 2003 with negative equity returns, except for the unaudited results for 2009, which show a very small positive return on equity.

COMPANY: ARIZONA-AMERICAN WATER COMPANY
DOCKET NO: W-01303A-09-0343; SW-01303A-09-0343

Response provided by: James Jenkins

Company Response Number: ANTHEM 9.9

Q. Does the Company and/or its consultants make a distinction between a loss which is to be accounted for within the fiscal year in which the loss occurs for financial accounting purposes, and a loss which occurs as a result of a regulatory phase-in order or decision for regulatory accounting purposes? If so, please provide copies of the accounting standards or guidelines upon which such distinction is based, and copies of any written opinion or analysis to support such distinction in accounting treatment.

A. No.

rehabilitation of existing mains and replacement of mains that have reached the end of their useful service life. The decision of whether to replace or rehabilitate our mains is subject to considerations of cost, feasibility and customer service impact.

The following table sets forth operating revenue for 2008 and number of customers as of December 31, 2008 for our regulated subsidiaries in the states where our Regulated Businesses provide services:

	Operating Revenue ($ in millions)	% of Total	Number of Customers	% of Total
New Jersey	$ 517.7	24.9%	643,330	19.4%
Pennsylvania	447.9	21.5%	648,958	19.5%
Illinois	187.5	9.0%	307,734	9.3%
Missouri	181.1	8.7%	456,887	13.8%
Indiana	156.4	7.5%	283,886	8.5%
California	128.6	6.2%	170,853	5.1%
West Virginia	115.7	5.5%	170,404	5.1%
Subtotal (Top Seven States)	1,734.9	83.3%	2,682,052	80.7%
Other†	347.8	16.7%	639,663	19.3%
Total Regulated Businesses	$ 2,082.7	100.0%	3,321,715	100.0%

† Includes data from our operating subsidiaries in the following states: Arizona, Georgia, Hawaii, Iowa, Kentucky, Maryland, Michigan, New Mexico, New York, Ohio, Tennessee, Texas and Virginia.

Approximately 83.3% of operating revenue from our Regulated Businesses in 2008 was generated from approximately 2.7 million customers in our seven largest states, as measured by operating revenues. In fiscal year 2008, no single customer accounted for more than 1% of our annual operating revenue.

The operational characteristics of our Regulated Businesses, including water and wastewater networks and infrastructure and water sources and supply, vary on a state-by-state basis, as explained below with respect to our top seven states by Regulated Businesses revenues.

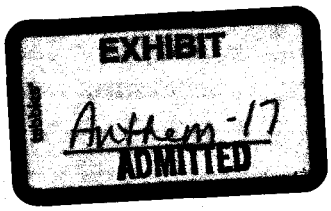
New Jersey

New Jersey-American Water Company, Inc., which we refer to as NJAWC, serves a population of approximately 2.5 million. NJAWC combined with our Applied Wastewater Management Inc., which we refer to as AWWM, (also regulated in New Jersey) generated approximately $517.7 million of operating revenue in 2008, representing approximately 24.9% of operating revenue of our Regulated Businesses for that period.

In New Jersey, our infrastructure and assets are designed to collect, treat and distribute water from a variety of surface water sources (including streams, lakes and reservoirs) and groundwater sources. In 2008, we obtained 65% of our water supply from surface water sources and 30% from groundwater sources. Purchased water accounted for 5% of water supply, respectively, for the same period.

NJAWC currently operates seven surface water treatment plants and approximately 150 groundwater treatment plants, which process water extracted from more than 170 groundwater wells. We maintain approximately 150 treated water storage facilities, 140 pumping stations and seven dams, and our water and wastewater collection and distribution systems comprise approximately 8,900 miles of mains and collection pipes. Both AWWM and NJAWC currently provide wastewater treatment services to small communities in New Jersey.

In New Jersey, in order to ensure that we have adequate sources of water supply, we utilize reservoirs, aquifer storage supplies and seasonal wells to provide for water needs during peak summer seasons. Through the



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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT.	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT.	DOCKET NO. SW-01303A-09-0343

DIRECT TESTIMONY OF DAN L. NEIDLINGER

STAND-ALONE RATE DESIGN AND RATE CONSOLIDATION

Q1. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A1. My name is Dan L. Neidlinger. My business address is 3020 North 17th Drive, Phoenix, Arizona. I am President of Neidlinger & Associates, Ltd., a consulting firm specializing in utility rate economics.

EXHIBIT
Hearing Exh. 18
ADMITTED

Q2. DID YOU PREVIOUSLY FILE DIRECT AND SURREBUTTAL TESTIMONY IN THE REVENUE REQUIREMENTS PHASE OF THIS PROCEEDING?

A2. Yes, I did.

Q3. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A3. I am appearing on behalf of the Anthem Community Council ("Anthem"). Anthem has intervened in this proceeding on behalf of over 8,800 of its residents that are water and wastewater customers of Arizona-American Water Company ("AAWC" or "Company").

Q4. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PHASE OF THE PROCEEDING?

A4. My testimony addresses two topics: stand-alone rate design and rate consolidation. I will comment on the recommendations of both the Company and Staff on these subjects.

I. STAND-ALONE RATE DESIGN

Q5. HAVE YOU REVIEWED THE RATE DESIGN TESTIMONIES OF COMPANY WITNESS BRODERICK AND STAFF WITNESS MICHLIK WITH RESPECT TO THE ANTHEM WATER DISTRICT AND THE ANTHEM/AGUA FRIA WASTEWATER DISTRICT?

A5. Yes. In my view, the current rate designs for both water and wastewater appear to be reasonable but cost of service studies were not filed in this case to validate this conclusion. Absent water and wastewater cost of service analyses, the across-the-board approach recommended by the Company is the only logical rate adjustment mechanism available, in the event that the Commission does not adopt Company-wide rate consolidation in this proceeding. This approach is preferable to Staff's proposed changes to water and wastewater rate designs that recommend changes without adequate foundation or support.

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Q6. WHAT ARE YOUR COMMENTS REGARDING STAFF'S RECOMMENDED RATE DESIGNS FOR ANTHEM WATER?

A6. I have two objections to Staff's proposed stand-alone water rate design. The first pertains to the pricing of higher tiers of the rate structure in relationship to pricing for the first tier. For instance, for the 5/8" x ¾" meters, Staff recommends that the rate for the first tier, 0-3,000 gallons, be increased from $1.54 to $2.00 – an increase of 30%. The recommended rate for the second tier, 3,001-9,000 gallons, is $5.00 or 207% greater than the current rate of $2.41. The recommended rate for the third tier, usage over 9,000 gallons, is $7.867 or 255% greater than the current rate of $3.08. There is no justification, in my view, for this extreme tilting of the rate structure which could create significant revenue stability problems for the Company.

The second objection is related to the proposed changes in tier break-points for the larger meter sizes. These are all two-tiered rates. Staff recommends lowering the breakpoint for the first tier by about 67%. For instance, the first tier break-point for a 2" commercial meter in Anthem is 185,000 gallons. Staff recommends lowering the breakpoint for this first tier to 66,000 gallons. These changes in tier break-points coupled with the previously discussed 207% and 255% increases in first and second tier rates would increase the bills for many commercial customers to levels that cannot be logically supported. For instance, the current water bill for a 2" meter commercial customer using 200,000 gallons is $630. Under Staff's proposed rates, the bill jumps to $1,584 – a 251% increase.

Q7. DID STAFF PROVIDE ANY COST JUSTIFICATION OR OTHER SUPPORT FOR THESE PROPOSED AND SIGNIFICANT CHANGES TO THE WATER RATE DESIGNS FOR ANTHEM?

A7. No, it did not. Staff did not prepare a cost of service study for the Anthem Water District to support its rate design revisions, nor did it discuss any non-cost factors that it considered in arriving at its rate proposals.

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Q8. IS STAFF ALSO RECOMMENDING A MAJOR REVISION TO THE RESIDENTIAL WASTEWATER RATE FOR CUSTOMERS IN THE ANTHEM/AGUA FRIA WASTEWATER DISTRICT?

A8. Yes. The current wastewater rate for Anthem/Agua Fria residential customers is comprised of a fixed monthly charge and a commodity charge based on water usage with a 7,000 gallon per month ceiling. Staff's proposed rate design eliminates the fixed monthly charge and recommends a monthly rate based on average monthly water usage in the months of January through March – a purely commodity rate. This proposed change in wastewater rates for Anthem's residential customers should not be accepted, because (i) winter lawns are a requirement in Anthem under various land-use restrictions, and thus (ii) a large percentage of the water use in the months of January through March is turf irrigation that never enters the wastewater collection system. As a result, Anthem residential customers would be required to pay, under Staff's proposed rates, wastewater charges on nonexistent sewerage.

Q9. WHAT IS YOUR RATE DESIGN RECOMMENDATION UNDER A STAND-ALONE RATE STRUCTURE WITH RESPECT TO RESIDENTIAL WASTEWATER RATES FOR THE ANTHEM/AGUA FRIA WASTEWATER DISTRICT?

A9. I recommend that residential customers be billed a fixed monthly charge for wastewater services. A fixed monthly charge for residential wastewater service is a standard ratemaking practice for most wastewater utilities and is consistent with the wastewater rates currently charged residential customers in the Company's other wastewater districts. Further, as discussed under the rate consolidation section of my testimony, all residential wastewater rates are based on a flat monthly charge. Alternatively, in the event that the Commission does not adopt Company-wide consolidated rates in this proceeding, the current fixed/commodity rate structure could be retained with any rate increases applied on an across-the-board basis.

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II. RATE CONSOLIDATION

Q10. THE COMPANY SUPPORTS RATE CONSOLIDATION BUT THE STAFF RECOMMENDS CONTINUANCE OF THE CURRENT STAND-ALONE CONFIGURATION. WHAT IS YOUR POSITION ON THIS ISSUE?

A10. In my view, the merits of rate consolidation significantly outweigh any adverse consequences of a rate consolidation process. To achieve the benefits of consolidation, however, all of the Company's water and wastewater districts should be included in the consolidation. The partial consolidation alternatives presented by Staff do not provide for any meaningful improvement over the current stand-alone system. Similarly, the current "mini-consolidation" of the Anthem and Agua Fria Wastewater districts into a single (and isolated) consolidated district makes no sense. If consolidation of all the Company districts is not accomplished in this case, the Commission should de-consolidate these wastewater districts and set separate stand-alone rates.

Q11. WHAT ARE THE MAJOR BENEFITS OF RATE CONSOLIDATION?

A11. Rate consolidation provides for the following major benefits:

1. Lower administrative costs through unified customer accounting and billing systems;
2. Reduction in rate cases and associated rate case expenses incurred by the Company, Staff, RUCO and other intervenors;
3. Elimination of distorted cost allocations among districts in rate filings - these cost imbalances abound in this case as discussed in my direct testimony on revenue requirements;
4. The implementation of standard customer service policies and related service rates and charges;
5. Improved rate stability and elimination of rate shock – an issue confronting Anthem customers in this case;
6. Reduced customer confusion with respect to differing rate schedules under one Company umbrella; and
7. The development and implementation of a targeted and comprehensive water conservation program for all of its systems.

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Mr. Marshall Magruder, an intervenor in this case, lists 22 rate consolidation benefits on Table 1, Page 12 of his early-filed rate design and rate consolidation testimony. His list incorporates many of the benefits listed above as well as others that deserve some consideration.

Q12. DID THE COMPANY DISCUSS RATE CONSOLIDATION IN DIRECT TESTIMONIES SUPPORTING ITS RATE FILING IN THIS CASE?

A12. Yes. The direct testimonies of Company witnesses Thomas Broderick[1] and Paul G. Townsley[2] support rate consolidation and discuss in some detail the beneficial effects of consolidation. Mr. Townsley discussed one additional benefit not listed above that is worthy of comment and support. Consolidation would allow the Company to acquire small water and wastewater systems that are in disrepair and make needed plant improvements without imposing rate shock on their customers.

Q13. YOU SHOW LOWER ADMINISTRATIVE COSTS AS THE FIRST BENEFIT ON YOUR LIST. PRIOR TO APPROVAL OF A CONSOLIDATION RATE PLAN, SHOULDN'T THE COMMISSION REQUIRE THE COMPANY TO PROVIDE A SPECIFIC COST REDUCTION PLAN THAT WOULD BE IMPLEMENTED DURING THE CONSOLIDATION PROCESS?

A13. Yes, I believe it should. It is incumbent on the Company, in my view, to identify and implement tangible cost reduction benefits attributable to rate consolidation. In that regard, the Commission should require the Company to provide, annually, reports describing the progress on its cost reduction activities in its administrative functions.

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[1] Revised Direct Testimony of Thomas M. Broderick, Pages 15 through 19.

[2] Direct Testimony of Paul G. Townsley, Pages 14 through 21.

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Q14. HAVE YOU REVIEWED TO RATE CONSOLIDATION PLAN DISCUSSED IN THE REBUTTAL RATE DESIGN TESTIMONY OF COMPANY WITNESS CONSTANCE HEPPENSTALL?

A14. Yes. Ms. Heppenstall has developed a detailed 3-Step plan for consolidating water and wastewater rates for all of the Company's water and wastewater districts. As a starting point for step increases, she has used the Company's rebuttal position on water and wastewater revenue requirements on a non-consolidated basis.[3] I am in general agreement with the approach she has taken since it results in the consolidation of all of the Company's systems. Ms. Heppenstall's 3-Step plan, however, produces some very large percentage step increases and decreases that I find undesirable and unacceptable.

Q15. PLEASE EXPLAIN.

A15. Exhibit DLN-1, attached, shows the percentage changes in step water and wastewater revenues under Ms. Heppenstall's 3-step plan compared with the percentage changes under an alternative 5-step consolidation plan. As indicated on Exhibit DLN-1, her 3-step plan results in water step increases as high as 31.82% for Mohave at Step 2 and step decreases as high as 33.53% for Anthem at Step 3. Similarly, under her plan, percentage step increases and decreases exceed 25% for the Sun City (increases) and Anthem/Agua Fria (decreases) wastewater districts. I suggest an alternative 5-step approach that constrains up or down percentage step adjustments to approximately 15% using equal dollar adjustments for each step. Although this plan would admittedly take longer to implement, it would provide for an improved smoothing of year-to-year rate adjustments.

Q16. HAVE YOU DEVELOPED A SPECIFIC SET OF STEP RATES TO ACCOMPANY THIS ALTERNATIVE PLAN?

A16. No, I have not as of the filing of this testimony. My plan is conceptual at this stage

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[3] Company Rebuttal Water Revenue Requirements are $71,719,121 and Rebuttal Wastewater Revenue Requirements are $29,602,049.

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but a detailed set of step rates could be developed with Ms. Heppenstall's assistance should the Commission desire to further explore this approach.

Q17. MS. HEPPENSTALL'S WATER RATE DESIGN CALLS FOR A FIVE TIER COMMODITY RATE COMPONENT. DO YOU AGREE WITH THIS INCREASE IN TIERS?

A17. Yes. The increase in commodity tiers is needed to address the variation in customer usage patterns among the various water districts. Without this change, large intra-class revenue subsidies would be experienced.

Q18. DO YOU AGREE WITH MS. HEPPENSTALL'S PROPOSED FLAT MONTHLY RATE FOR RESIDENTIAL WASTEWATER SERVICE?

A18. Yes. As earlier discussed in the stand-alone rate design section of my testimony, a flat monthly rate is the rate design standard that should be adopted under rate consolidation.

Q19. DOES THIS CONCLUDE YOUR TESTIMONY ON STAND-ALONE RATE DESIGN AND RATE CONSOLIDATION?

A19. Yes, it does.

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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER AND SUN CITY WATER DISTRICTS	DOCKET NO. W-01303A-09-
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM / AGUA FRIA WASTEWATER, SUN CITY WASTEWATER AND SUN CITY WEST WASTEWATER DISTRICTS	DOCKET NO. SW-01303A-09-

DIRECT TESTIMONY
OF
CHRISTOPHER C. BULS
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
JULY 2, 2009

EXHIBIT
A-5
ADMITTED

TESTIMONY
OF
CHRISTOPHER C. BULS
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
DATED JULY 2, 2009

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EXECUTIVE SUMMARY

Mr. Buls supports the implementation of an infrastructure improvement surcharge in the Sun City Water District and a pro forma adjustment for certain assurance fees related to transferring the Anthem water lease from Del Webb to Arizona-American Water Company.

Sun City Water has the oldest infrastructure of any of Arizona-American Water Company's, and the infrastructure is at point in the asset life cycle where significant levels of replacement capital will begin to be invested. The qualifying assets would be limited to replacements of existing assets, including replacement mains, hydrants, meters (including AMR replacements), services, tanks and booster stations.

If rate consolidation is approved, Mr. Buls would recommend that this surcharge be spread across all of the Company's water customers rather than just the Sun City Water customers and that eligibility be expanded to include qualifying assets in all water districts rather than limiting it only to Sun City.

Mr. Buls also testifies that Arizona-American is currently seeking an assignment of the Ak-Chin Community water lease from Del Webb. Mr. Buls explains the reasons for the use of a letter of credit in relation to the assignment of the lease and supports the pro forma adjustment for the assurance fees relating to the transfer of the lease.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Christopher C. Buls. My business address is 19820 N. 7th Street, Suite 201, Phoenix, Arizona 85024

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by American Water Works Service Company as Vice President of Finance.

Q. PLEASE DESCRIBE YOUR DUTIES AND RESPONSIBILITIES AS VICE PRESIDENT OF FINANCE.

A. In my capacity as Vice President of Finance, I direct the Financial Planning and Analysis, Rates & Regulatory, and Financial Controls and Compliance activities for the regulated subsidiaries in Arizona, New Mexico and Hawaii. I also have indirect management responsibility for the accounting services provided to these states. These services are supplied by personnel in the American Water Shared Services Center in Cherry Hill, New Jersey.

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Arts degree in Chemistry from Indiana University – Bloomington in 1982 and a Master of Business Administration with a concentration in Finance also from Indiana University – Bloomington in 1987. Additionally, I have been a Certified Management Accountant since 1991.

Q. PLEASE OUTLINE YOUR BUSINESS EXPERIENCE.

A. Upon graduating from Indiana University in 1987, I joined Kidder, Peabody as a Registered Representative. In August 1988, I accepted employment with Air Products and Chemicals where I held numerous positions of increasing responsibility including

Financial Analyst, Plant Controller, Business Controller and various Financial Planning and Accounting Management positions at both a corporate and segment level. In 2001, I joined the Engineered Materials division of Cytec Industries as the Operations Controller, where I was responsible for Planning, Budgeting and Accounting for six manufacturing locations across the United States. In 2004, I joined American Water as the Vice President of Finance for the southeast states, and early in 2007, I transferred into the same role with similar responsibility for the western states.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY TO THIS COMMISSION?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Please see the executive summary of my direct testimony.

II AN INFRASTRUCTURE IMPROVEMENT SURCHARGE IS A PROVEN MEANS OF FACILITATING PLANNED INFRASTRUCTURE REPLACEMENT BY WATER UTILITIES.

Q. BRIEFLY DESCRIBE WHAT YOU MEAN BY AN "INFRASTRUCTURE IMPROVEMENT SURCHARGE" FOR THE SUN CITY WATER DISTRICT.

A. An infrastructure improvement surcharge is intended to provide a utility with a return on and of select, qualifying investments made between rate cases. It would be an additional charge added to the customer's regular bill.

Q. ARE THERE OTHER JURISDICTIONS WHERE THIS IS ALREADY IN PLACE?

A. Yes. There are a number of states where these types of charges are part of the regulatory framework; these programs go by different names in different states including DSIC, ISRIS, and other acronyms. I had hands-on experience with a DSIC while working at

Pennsylvania American Water and have consulted with the Rates Director in our Central States who works with similar surcharges in Illinois, Indiana, Missouri and Ohio. Additionally, California-American Water also recently received approval for infrastructure surcharges. Finally, this type of mechanism has been identified by NARUC as a best regulatory practice for water utilities.

Q. WHY ARE YOU RECOMENDING THIS FOR SUN CITY WATER?

A. Sun City Water has the oldest infrastructure of any of Arizona-American Water Company's ("Arizona-American" or "Company") districts. Because of its age, the infrastructure in this district is at a point in the asset life cycle where significant levels of replacement capital will begin to be invested. The need for replacement capital in Sun City is highlighted by the leak repair data we have collected over the last few years. With this need in mind, we are planning capital investment in that district to address the issue. This type of surcharge has successfully facilitated necessary infrastructure replacement in other jurisdictions.

Q. WHAT PROJECTS SHOULD BE COVERED UNDER THIS SURCHARGE?

A. A general description of the types of assets covered in this program is provided below. Mr. Cole provides more specific information on details of the projects in his direct testimony.

Q. HOW WOULD THIS MECHANISM WORK?

A. First, one key goal is making sure it is simple for the Company to administer, the staff to review and our customers to understand. There are several components to the overall program, including:

1. Defining which assets qualify for the surcharge.
2. Calculating and filing the surcharge.

3. Billing our customers for the surcharge.
4. Identifying appropriate controls.

Q. WHAT ASSETS WOULD BE COVERED UNDER THIS SURCHARGE?

A. These are improvement surcharges, so the qualifying assets would be limited to replacements of existing assets. The most common types of assets covered by other infrastructure improvement programs are replacement mains, hydrants, meters (including AMR replacements), services, tanks and booster stations. Additionally, infrastructure relocations which are not reimbursed are often included. I believe these are the appropriate groups for inclusion in Arizona-American's program in the Sun City Water District as well.

Q. HOW WOULD THIS SURCHARGE BE CALCULATED?

A. Twice per year, the Company would analyze the qualifying assets placed in service. All of the calculations would be based on factors from the most recently completed rate case. These factors include, but are not limited to, depreciation rates, allowed ROE, cost of debt, capital structure and revenue gross-up factors. Based on the estimated service life and depreciation rates from the last case, the Company would calculate the depreciation expense attributable to these assets. Additionally, the Company would calculate the appropriate return on these assets based on the authorized return approved in this case or a subsequent case, if applicable. The total amount of the surcharge would be the return on and of these qualifying assets based on the revenue gross-up factor from this rate case or a subsequent case, if applicable. Simultaneous with implementation of new rates from any subsequent general rate case evidenced by a decision from the Commission, a revised surcharge would be calculated removing qualifying assets included in the rate base of that general rate case from the surcharge calculation. The revised surcharge would incorporate changes in depreciation rates, return on rate base, and the revenue conversion factor from

the recently-completed case. Changes in general operating expenses, either positive or negative, would not generally be considered in these surcharge calculations.

Q. HOW WOULD THE COMPANY FILE THIS SURCHARGE WITH THE COMMISSION?

A. The Company would file the proposed surcharge request with the Commission after completing the appropriate analysis. The Commission Staff would then have thirty days to review the filing, issue a brief report and recommended order, which would be followed by a Commission vote at the next Open Meeting. It is important to note that this review is intended to check mechanics and compliance with the controls, it is not intended to be a full prudency review; the more in-depth controls will be discussed later in my testimony. If Staff does identify an issue, both parties would work together to resolve the issue and once resolved, the Commission would vote on the surcharge.

Q. HOW WOULD ARIZONA-AMERICAN COMMUNICATE THIS SURCHARGE TO THE CUSTOMER?

A. The Company would provide an overview of the program to the customer annually via a bill insert. This insert would provide an easy to understand explanation of how the program works and a brief description of the qualifying assets placed in service during the previous year. Additionally, included with the first bill after any changes to the surcharge, the Company would notify the customers of the percentage change in the surcharge and the additional investment made during the proceeding period. Finally, the Company would provide a more in-depth discussion of the entire process and assets placed in service on the Arizona-American website.

Q. HOW WOULD THESE SURCHARGES BE BILLED TO THE CUSTOMER?

A. The total amount of the surcharge would be calculated as a percentage of the base revenue requirement from the last general rate case. This single percentage would then be applied to the entire base bill for all customers. Any required taxes or fees normally added to the base rate amount would also be added to the new amounts as well. Special surcharges such as ACRM amounts would not be included in the calculation. This amount would be disclosed on a separate line of the bill as an Infrastructure Improvement Surcharge with the single percentage clearly visible.

Q. WHAT CONTROLS DOES THE COMPANY PROPOSE REGARDING THESE SURCHARGES?

A. There are several controls utilized in other jurisdictions that would be appropriate for use in Arizona. The first and most important control is that all of these assets placed in service subsequent to the previous rate case would be subject to the normal prudency review in the following rate case. These assets would be reviewed in similar fashion to any assets placed in service as part of a general rate case. A second control is that the Company proposes a limit of 10% in additional revenue generated from these surcharges. For example, if the Company was granted an annual revenue requirement of $10 million in the previous case, the amount of the surcharge could never be greater than $1 million or 10%. For amounts greater than 10%, the Company would need to file a general rate case. At the conclusion of a general rate case, the rate would be reset as described previously in the calculation section. Finally, the Company would prepare an annual earnings test and would be allowed only to obtain a surcharge increase for the return allowed on rate base.

Q. HOW WOULD THIS IMPACT THE REVENUE REQUIREMENT IN THIS CASE?

A. This would have no impact on the revenue requirement in the current case as it would be based on investment subsequent to the investment in the proposed rate base. Once implemented, the rate increase effect on Sun City water customers is difficult to project as the impact could be significantly reduced if the rate consolidation plans under consideration are implemented.

Q. HOW WOULD YOU MODIFY THIS PROPOSAL IF RATE CONSOLIDATION IS APPROVED?

A. If rate consolidation is approved, I would recommend that this surcharge be spread across all of the Company's water customers rather than just the Sun City Water customers. This would result in a significant reduction in the surcharge amount to our Sun City customers. I would also recommend that eligibility be expanded to include qualifying assets in all water districts rather than limiting it only to Sun City.

III <u>THE ANTHEM WATER LEASE IS A CRITICAL COMPONENT OF THE LONG TERM VIABILITY OF THE ANTHEM WATER SYSTEM.</u>

Q. PLEASE PROVIDE BACKGROUND ON HOW THIS LEASE ORIGINATED?

A. As the developer for the Anthem community, Del Webb had an obligation to provide an assured source of water sufficient for the community. Anthem's location has virtually no viable ground water supply. Consequently, Del Webb contracted with the Ak-Chin Indian Community to lease water rights. The water rights included in this lease provide virtually all the water for the Anthem community.

Q. HOW IS ARIZONA-AMERICAN CURRENTLY UTILIZING THESE WATER RIGHTS?

A. Arizona-American currently relies on this lease for virtually all the water provided to Anthem. Arizona-American reimburses Del Webb for the cost of water purchased for Anthem under this water rights lease. As part of the original agreement between Citizens Utilities and Del Webb, Del Webb is required to assign the lease rights to the Company upon achievement of certain milestones, subject to the consent of the Ak-Chin Community and the U.S. Department of Interior.

Q. HAVE THESE MILESTONES BEEN MET?

A. Yes. These milestones have been met.

Q. WHY HASN'T THE LEASE BEEN TRANSFERRED IF THE MILESTONES HAVE BEEN MET?

A. The Ak-Chin Community must approve the assignment of the lease. There have been two sticking points with its approval. First, the proposed assignment by Del Webb to the Company represents the assignment of only a portion of the overall lease, with Del Webb retaining the balance of the lease. This will effectively bifurcate one lease agreement into two lease agreements, and the Ak-Chin Community has not yet indicated that it is willing to bifurcate the lease. Second, the Ak-Chin Community needs to review and approve the financial viability of the new lessee, Arizona-American.

Q. REGARDING THE FIRST ISSUE, HAS DEL WEBB BEEN SUCCESSFUL IN SPLITTING THE LEASE?

A. The three parties need to work out both of the issues prior to the partial assignment of the lease to the Company. However, recent discussions between the parties appear to

indicate a willingness on the part of the Ak-Chin Community to consider splitting the lease.

Q. REGARDING THE SECOND ISSUE, HAS THE AK-CHIN COMMUNTY REVIEWED ARIZONA-AMERICAN AS THE NEW LESSEE?

A. Yes. We met with representatives from the Ak-Chin Community and provided financial statements on both Arizona-American Water and our parent, American Water Works, Inc.

Q. HAS ARIZONA-AMERICAN BEEN APPROVED AS THE NEW LESSEE?

A. No. The Ak-Chin Community informed us that, because of the Company's on-going losses and weak financial position, they would not be willing to consent to the partial assignment of the lease to the Company without additional assurance of the Company's ability to pay the on-going expenses.

Q. WHAT ADDITIONAL ASSURANCE IS THE COMPANY PROPOSING?

A. The Company is proposing the purchase of a letter of credit ("LC") for an amount equal to the next year's payment. The Company would agree to annually renew this LC at least three months prior to the expiration of the existing LC until such time as the Company meets certain predetermined financial milestones. Once these milestones are met, the Company would no longer need to maintain an LC.

Q. ARE THESE FEES KNOWN AND MEASURABLE?

A. Yes. We know these rights need to be assigned to insure the long-term viability of the Anthem system. We also know that the Ak-Chin Community will not agree to an assignment without additional financial security. In discussing this situation with representatives from our American Water Capital Corp. affiliate, we believe the LC proposal represents the lowest cost option available which is why we have included it.

explain?

American Water Capital Corp. maintains banking relationships with a consortium of large banks and regularly utilizes these banks for LCs under similar circumstances. Consequently, these fees are measurable.

Q. SHOULD THESE FEES BE INCLUDED AS A PRO-FORMA EXPENSE ADJUSTMENT?

A. Yes. The fees are known and measurable, represent the least cost method to move forward and will enable us continued access to the water needed by the community. This expense is reflected in the cost of purchased water adjustment, which is SLH-5.

Q. ARE YOU CERTAIN THE AK-CHIN COMMUNITY WILL AGREE TO THIS PROPOSAL?

A. No. We are not certain they will agree to this option; however, we do know that we will need to do something to provide additional assurance and believe this represents the lowest cost option.

Q. HOW MUCH WOULD THESE ASSURANCE FEES COST?

A. Based on utilizing our current banking relationships, the rate for these fees is 35 basis points on the total plus an application fee of between $250 and $500. Our current water purchase price is $83 per acre foot, and Anthem has the right to 7,900 acre feet annually. This results in an annual commitment of $655,700. Consequently, these fees would be $2,795 per year.

Q. HAS ARIZONA-AMERICAN CONSIDERED OTHER OPTIONS TO OBTAIN WATER RIGHTS?

A. Yes, but no other good options exist. Leasing water rights at this time would require an initial payment well in excess of $8 million dollars plus the annual purchased water charges would be at, or exceed, the current water charges. Even with the modest charge

for the additional financial assurance provided by the proposed LC, the current lease provides real savings for our customers versus attempting to obtain new rights.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER AND SUN CITY WATER DISTRICTS	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM / AGUA FRIA WASTEWATER, SUN CITY WASTEWATER AND SUN CITY WEST WASTEWATER DISTRICTS	DOCKET NO. SW-01303A-09-0343

REBUTTAL OF STAFF RATE DESIGN TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
APRIL 7, 2010

EXHIBIT
A-39
ADMITTED

REBUTTAL OF STAFF RATE DESIGN TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
APRIL 7, 2009

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REBUTTAL OF STAFF EXHIBIT TMB-2 ANTHEM TIERED WATER RATES STUDY
REBUTTAL OF STAFF EXHIBIT TMB-3 ANTHEM SEASONAL CONSUMPTION

EXECUTIVE SUMMARY

My Rebuttal of Staff Rate Design Testimony first responds to Staff's recommendations in its March 29, 2010 testimony on district stand-alone rate design. Next, I briefly respond to other district stand-alone issues such as the existing Sun City Low Income Program and the Company's proposed Infrastructure Improvement Surcharge. Then, I turn to the Company's response to Staff's alternative rate consolidation scenarios and conclude that the only sensible alternative approach to stand-alone rates is a state-wide rate consolidation of the Company's districts on a transition timeline which mitigates the short-term rate increases and decreases. It is not sensible to consolidate the rates only of sub-groups of the Company's districts.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Thomas M. Broderick. My business address is 2355 W. Pinnacle Peak Road, Suite 300, Phoenix, Arizona 85027, and my business phone is 623-445-2420.

Q. ARE YOU THE SAME THOMAS M. BRODERICK THAT SUBMITTED DIRECT TESTIMONY ON BEHALF OF THE COMPANY IN THIS CASE ON JULY 2, 2009 AND REBUTTAL TESTIMONY ON REVENUE REQUIREMENT ON MARCH 22, 2010?

A. Yes.

II PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL OF STAFF RATE DESIGN TESTIMONY IN THIS CASE?

A. Please see the executive summary. My Rebuttal of Staff Rate Design Testimony first responds to Staff's recommendations in its March 29, 2010 testimony on district stand-alone rate design. Next, I briefly respond to other district stand-alone issues such as the existing Sun City Low Income Program and the Company's proposed Infrastructure Improvement Surcharge. Then, I turn to the Company's response to Staff's alternative rate consolidation scenarios and conclude that the only sensible alternative approach to stand-alone rates is a state-wide rate consolidation of the Company's districts on a transition timeline which mitigates the short-term rate increases and decreases. It is not sensible to consolidate the rates only of sub-groups of the Company's districts.

Q. WHAT OTHER REBUTTAL TESTIMONY WITNESSES ARE SUPPORTING ARIZONA-AMERICAN'S REBUTTAL OF STAFF'S RATE DESIGN?

A. Ms. Constance E. Heppenstall, a consultant employed by Gannett Fleming Inc., describes her efforts to build the rate consolidation model being used by all the parties as well as other details concerning how the model was improved as a result of feedback. She also sponsors a variation on Staff's rate consolidation scenario one which I also discuss.

III DISTRICT STAND ALONE-RATE DESIGN

Q. IS THE COMPANY SUBMITTING HEREIN REVISED STAND ALONE RATE DESIGN AT THIS TIME INCORPORATING ANY REVISIONS SINCE FILING ITS REBUTTAL ON MARCH 22, 2010?

A. No, we are not persuaded that any of Staff's stand-alone rate design changes improve the existing rate design and so we continue to support a pro-rate increase to the existing rate design using the revised rebuttal revenue requirement submitted in the Company's March 22, 2010 rebuttal testimony. The Company has noted below its specific disagreements with Staff and may provide (on May 14, 2010) a revised rate design if it is persuaded by any of the positions of other interveners in their May 3, 2010 rebuttal testimony.

ANTHEM / AGUA FRIA WASTEWATER DISTRICT

Q. STAFF STATED IT INTENDS TO ADJUST ITS PROPOSED RESIDENTIAL WASTEWATER RATE DESIGN IN ITS SURREBUTTAL TESTIMONY, BUT IN THE MEANTIME IS THERE AN ERROR IN STAFF'S PROPOSED RATE OF $13.66 PER 1,000 GALLONS (Michlik, Page 11, lines 9-11) FOR THE ANTHEM/AGUA FRIA WASTEWATER DISTRICT?

A. Yes. Even though Staff intends to update this rate in its surrebuttal testimony, Staff witness Mr. Michlik proposed a residential wastewater rate for this district which eliminates the monthly basic service charge and instead would charge a $13.66

commodity rate on each 1,000 gallons of water use by each residential wastewater customer.

Q. DOES STAFF'S RATE OF $13.66 PER 1,000 GALLONS GENERATE MUCH MORE REVENUE THAN ITS OWN RECOMMENDED RESIDENTIAL REVENUE REQUIREMENT?

A. Yes, by my calculations. The residential revenue component of Staff's revenue requirement is $11,707,080 (Staff work paper) and charging a commodity rate of $13.66 per 1,000 gallons on all residential water usage would produce revenues significantly in excess of the residential component of Staff's revenue requirement. Alternatively, a rate of $9.58 per 1,000 gallons on all residential usage would generate the residential component of Staff's revenue requirement. I am providing this information in the event that Staff does not update this rate in its surrebuttal testimony.

Q. WHY DOES THE COMPANY NOT ACCEPT STAFF'S RECOMMENDATION TO ELIMINATE THE RESIDENTIAL BASIC SERVICE CHARGE FOR ANTHEM / AGUA FRIA WASTEWATER DISTRICT?

A. The Company ***strongly*** opposes eliminating the residential monthly basic service charge for wastewater for several reasons. First, it will unduly increase the dependence of wastewater revenues on water sales which will vary significantly from year to year and, in the case of Anthem, are declining. When rates are designed on a sales base that is declines in the future, the Company cannot recover the approved revenue requirement. Residential water sales in Anthem were (in kgals) 1,132,230 in 2007 and were 1,071,647 in 2008 or a 5.4% decline over one year. Second, the vast majority of the wastewater cost of service is fixed and recovering revenue from commodity sales only is a very great deviation from cost of service cost causation principles. Third, no party to this case has fully analyzed the potential significant and consequential water conservation reaction to

increasing this commodity charge from the existing rate of $3.48 per 1,000 gallons (up to the first 7,000 gallons of usage) to $13.66 (or the correct $9.58) per 1,000 gallons on all usage. Even more water conservation – while important under appropriate circumstances - would cause the Company to further under collect its authorized revenue requirement.

If such a rate design is adopted, the Commission must authorize a decoupling feature to this district's rate design to ensure the Company actually collects the authorized revenue requirement.

Q. TO WHAT EXTENT HAS THE COMPANY ANALYZED THE CONSERVATION EFFECT OF INCREASING RATE TIERS IN ANTHEM?

A. I have attached "Rebuttal of Staff Exhibit TMB-1 Anthem Tiered Water Rates Study" which provides the results of a recently completed study performed by Mr. Miles H. Kiger, rate analyst in my department. This study documents a reduction in the short-term of at least 5% in water consumption in Anthem district as a result of the rate increase that was effective June 2008. (And because the test year in this case is 2008 and the conservation effects of that rate increase only began to emerge in late 2008 and are continuing today, the Company's 2008 test year billing determinants in this case are already over-stated and so the rates to be authorized in this case will under produce the authorized revenue requirement.) The Company has not analyzed the long-term conservation effect of increasing rate tiers. If the Commission now unleashes yet another strong incentive to conserve water by dramatically increasing the wastewater commodity charge and applying it to all usage, that revenue erosion impact will be further exacerbated.

Staff recommended a monthly basic service charge of $44.40 and $66.61 for 5/8 inch and 3/4 inch ***commercial*** customers, respectively. This is an appropriate range for ***residential*** customers as well. The monthly basic service charge recovers fixed investment which does not vary with the volume of usage.

Q. ARE YOU HOPING THAT STAFF DOES NOT FOLLOW THROUGH WITH ITS STATED INTENTION OF PROPOSING A WINTER USAGE BASED RATE FOR RESIDENTIAL CUSTOMERS IN ANTHEM / AGUA FRIA WASTEWATER DISTRICT?

A. Yes, because such a rate proposal in Anthem would likely have negative unintended consequences (increase summer water usage) and would ensure the Company cannot recover the authorized revenue requirement.

Alternatively, we would much prefer to work with Staff over the next few years to better analyze and understand the implications of such a winter oriented rate design and only implement it when the environment is appropriate, thereby avoiding unintended consequences.

Q. WHY IS IT POOR TIMING FOR SUCH A PROPOSAL?

A. Anthem's two homeowner associations ("HOAs") have for years been required to over seed in winter their lawns at residences and in common areas to keep lawns green in winter. However, this requirement is apparently now in flux for several reasons including the current difficult economy and many of the common areas were **not** over seeded in winter 2009 / 2010 and some were allegedly even **painted** green to avoid the expense of watering and lawn maintenance. This has caused some of the residents to talk about changing the HOAs requirement and to likewise obtain de facto exemptions. The Company – upon reviewing Staff's testimony - submitted discovery to the Anthem Council seeking more information on winter lawn requirements and current status. We

will provide the response in the Company's May 14, 2010 rebuttal to intervener's rate designs.

Q. WHAT IS THE RELEVANCE OF ANTHEM'S WINTER LAWNS TO A WINTER USAGE BASED WASTEWATER TARIFF?

A. If Anthem no longer has the same winter lawn requirement going forward that will reduce winter watering and if the Commission adopts a residential winter usage wastewater tariff based on 2008 usage, the Company will dramatically under collect its revenue requirement using such a tariff. Exhibit TMB-2 Anthem Seasonal Consumption displays Anthem's winter and summer water usage. Anthem's average winter water usage is not even 2,000 gallons per month less than its summer usage because of this winter lawn requirement. If the requirement for winter lawns changes or ends, winter water usage could easily decline by 20%. This Exhibit shows that Anthem's winter water usage is declining, just as it is on an annual basis. This Exhibit also shows that Anthem does not enjoy an influx of winter visitors as the winter and summer residential customer count is about the same or even slightly higher in the summer. In 2009, Anthem had more customers in the summer (8,323) than in the winter (8,299).

Q. IF – IN SPITE OF THE FLUX IN WINTER LAWN REQUIREMENT – THE COMMISSION WISHES TO IMPLEMENT A WINTER USAGE WASTEWATER RESIDENTIAL TARIFF IN ANTHEM, CAN IT BE IMPROVED?

A. Yes. It would be critical to maintain a reasonable monthly minimum charge to reduce the revenue dependence on winter water use in order to ensure a degree of revenue stability and to not create such a strong incentive for Anthem to become brown in the winter for no good reason. The Company may recommend such a charge after it reviews Staff's updated rate design. As I mentioned above, Staff recommended a monthly basic service

charge of $44.40 and $66.61 for 5/8 inch and 3/4 inch ***commercial*** customers, respectively. This is an appropriate range for ***residential*** customers as well.

Q. WHAT ARE SOME OF THE REASONS THE COMPANY BELIEVES THIS ISSUE NEEDS FURTHER STUDY?

A. The Company believes that winter usage tariffs may have the negative unintended consequence of causing customers to use more water in Arizona's water scarce summer. Under a winter usage tariff, Anthem's customers would not pay any additional wastewater charges no matter how much water they consume in non-winter months. The Company also questions the appropriateness of a policy to select Anthem water district for this tariff change when, for example, Sun City water district's rates are much lower and it still uses ground water and does not reuse wastewater. Paradise Valley also uses only ground water. We are also concerned about a rate design policy that leads Anthem customers down a path of temporarily avoiding paying an authorized revenue requirement through rate design changes. Unfortunately, the Company's cost of service is largely fixed cost in Anthem and it seems wasteful to have Anthem's residents focus on winter water use and give up their winter lawns in order to temporarily save on their water bills only to later find out that the Company has filed for yet another rate increase in order to actually collect its Commission authorized revenue requirement. Anthem is one of the few Arizona communities with a long-term secure and renewable surface water supply that it re-uses. The Company believes Anthem should not be misled on a course of avoiding the associated fixed costs of service. The Company believes rate consolidation is the best way to address this situation.

1 **SUN CITY WATER**

2 **Q. DID STAFF'S TESTIMONY EXPLAIN WHY THEY REDUCED THE FIRST**
3 **TIER RESIDENTIAL RATE (2.6%), YET INCREASED THE THIRD TIER 45%?**
4 A. No, however, I suspect it was to increase the incentive for water conservation. The
5 existing Sun City water first tier rate for 5/8 and 3/4 inch meter customers is presently
6 $0.719 per kgals and Staff recommends reducing it to $0.700 per kgals. Overall, Staff
7 supports a Sun City Water district rate increase of 21.65%. The Company believes that
8 reducing the first tier rate is **not** appropriate. It should increase to at least $0.80 per kgal.

9 **Q. WHERE DID STAFF COMPENSATE FOR THIS REDUCTION IN THE FIRST**
10 **TIER?**
11 A. Staff recommends the third block rate increase by 45% and they lowered substantially the
12 tier break points for meters larger than 1.5 inch.

13 **Q. ARE THESE LARGER RESIDENTIAL METER CUSTOMERS LOCATED**
14 **PRIMARILY IN CONDOMINIUM HOMEOWNER ASSOCIATIONS?**
15 A. Yes. For example, we have a 2 inch meter customer with 11 condo units that during the
16 test year used between 46,000 and 132,000 gallons per month. Staff is recommending
17 the break point between their first and second tiers be lowered from 164,000 to 67,000
18 gallons per month. The Company is ok with that, but under Staff's proposal this
19 customer's usage will now frequently land in the second block at Staff's much higher
20 proposed rate, resulting in a 35% increase in the high month's bill. I think these condos
21 will conserve further without shifting this much revenue from the first to third tiers.

22

23

PRIVATE FIRE RATES FOR ANTHEM & SUN CITY WATER

Q. WHY DID STAFF DRAMATICALLY REDUCE THE PRIVATE FIRE MONTHLY MINIMUM CHARGES FOR BOTH STAND-ALONE AND RATE CONSOLIDATION SCENARIOS?

A. I do not know as they did not explain their reason(s) in their March 29, 2010 testimony why, for example, Staff recommends lowering Anthem's three-inch private fire rate from the existing rate of $49.67 per month to $10.00 or why in Sun City Staff recommends lowering the six-inch private fire rate from the existing rate of $36.21 per month to $10.00. Pretty much in both Staff's stand-alone proposal and rate consolidation scenarios Staff recommends a private fire rate of $10.00 per month for meter sizes up to six inches and then only increases them slightly for larger sizes.

Q. HOW MUCH REVENUE DOES THIS SHIFT FROM PRIVATE FIRE TO OTHER CLASSES?

A. The Company, in its variation on Staff's scenario one attached to Ms. Heppenstall's testimony uses our rebuttal revenue requirement to support a total private fire revenue requirement of $638,000. Staff, on the other hand, supports a private fire revenue requirement of only $133,610.

Q. DOES THE SOURCE OF THE DIFFERENCE APPEAR TO BE A DIFFERENCE IN METER SIZE MULTIPLES?

A. Yes. Staff did not apply any multiples to some meter sizes and small multiples to the largest meter sizes relative to the existing rates and Company's rebuttal proposal. Since Staff has not explained their reason for changing, the Company recommends the Commission not adopt Staff's private fire rates. In the Company's rate consolidation scenario, the mathematical square of the size of the private fire line is used to

differentiate rates. For example, two inches squared is four and three inches squared is nine. Thus, dividing nine by four gives a meter multiple of 2.25 for the three-inch meter as compared to the two-inch meter for private fire.

IV OTHER STAND-ALONE ISSUES

INFRASTRUCTURE IMPROVEMENT SURCHARGE

Q. STAFF'S MR. MICHLIK OPPOSES THE COMPANY'S PROPOSED INFRASTRUCTURE IMPROVEMENT SURCHARGE ("IIS") AS AN EXTRAORDINARY RESPONSE TO ORDINARY CAPITAL IMPROVEMENTS. IS ANY CAPITAL PROJECT ORDINARY THESE DAYS?

A. No. First, the parties will need some clarity as to whether the IIS is a topic for the revenue requirement phase of this case or the rate design phase. RUCO discussed it in the former and the Company responded to RUCO in the March 22, 2010 Rebuttal Testimony of Mr. Paul G. Townsley; whereas Staff discussed it in their March 29, 2010 Rate Design Testimony (Michlik, Page 9, lines 1-15). The response already provided by Mr. Townsley addresses Staff's position. I would only add that capital is scarce today and no capital improvement should be labeled as "ordinary." There are presently too many demands on the Company's scarce capital which must be very carefully prioritized. The IIS, if approved, would provide a slight competitive edge to the Sun City Water district for the identified categories of capital improvements and replacements because the IIS reduces regulatory lag.

SUN CITY LOW INCOME PROGRAM

Q. DID STAFF'S MICHLIK OVERLOOK INCREASING THE SUN CITY WATER DISTRICT'S LAST RATE BLOCK FOR THAT DISTRICT'S LOW INCOME PROGRAM?

A. Yes. Since Staff does not discuss this program, one can only assume they wish to continue it from observing Michlik Schedule JMM-1. There, Staff recommends the 50% discount for residential 5/8 inch low income customers continue. However, they did not address the program's funding. As per Staff's discount and assuming 1,000 customers participate, the updated annual subsidy is $54,000. As the Company has disclosed, enrollment is presently less than the 1,000 customer maximum and the fund is over collected. So long as the Commission acknowledges in the order in this case that it wishes to continue the Sun City low income program, its balancing account feature(which allows the Company to late refund any over charge or recover any under charge) and authorizes a surcharge which can be true-up annually, the Company is satisfied.

V <u>RATE CONSOLIDATION</u>

Q. STAFF RECOMMENDS CONTINUATION OF DISTRICT STAND-ALONE TARIFFS. WHAT IS THE COMPANY'S CURRENT POSITION?

A. Although we would have preferred for the Commission to more strongly support rate consolidation by this point in the case, the Company's current position must be identical to Staff as regards continuing district stand-alone rates versus adopting single tariff consolidated tariffs. I comment herein; as does the testimony of the Company's consultant Ms. Connie Heppenstall, on the Staff's March 29, 2010 rate consolidation scenarios. Both of us support a variation on the Staff's rate consolidation scenario one in the event the Commission is inclined to implement a version of consolidated rates in this case (which also includes the districts from the prior rate case). This current position is consistent with the Company's prior position of following the Commission's lead on this topic.

WASTEWATER METER MULTIPLE

Q. DID STAFF RELY ON TOO LARGE OF A METER MULTIPLE IN ITS CONSOLIDATED WASTEWATER RATE DESIGNS?

A. Yes. In Staff's Scenarios 1 and 2 for wastewater, Staff used a meter multiple sixteen times greater than the 5/8 inch rate for any customer with a greater than two-inch water meter. This is odd because Staff's Mr. Michlik did not use such a large meter multiple in his recommended stand-alone wastewater rates. Such a large meter multiple is contrary to existing rates.

Q. WHAT DID STAFF'S MR. MICHLIK DO DIFFERENTLY IN THE WASTEWATER RATE CONSOLIDATION SCENARIOS?

A. First, Mr. Michlik derived his recommended rate for a 5/8 and 3/4 inch water meter customer that is also a sewer customer. Then, he applied the water meter equivalent factor to each meter size. Therefore, he recommended a one-inch water meter customer have a basic service charge (flat sewer rate) that is 2.5 times the 5/8 inch charge. Likewise, the one and a half inch meter is five times, the two inch meter customer is 8 times greater and the greater than 2 inch meter charge is 16 times greater.

Q. WHY IS THIS GENERALLY NOT THE PREFERRED METHOD FOR DETERMINING THE SEWER BASIC SERVICE CHARGE FOR DIFFERENT METER SIZE CUSTOMERS?

A. A sewer line into an establishment is different in sizing than the water line/meter size. One would expect that the differential would not be as great as in a water meter. For example, a residence with a 5/8" meter may have a 4" sewer lateral coming from the home, yet a commercial customer with a 2" meter might only have a 6" sewer line.

Q. WHAT ARE THE METER MULTIPLES IN THE COMPANYS VERSION 3 OF THE RATE CONSOLIDATION MODEL?

A. For a one-inch Commercial water meter customer it is 2.67 times the 5/8" sewer Basic Service Charge; a one and one-half inch water meter customer is 4.67 times and for a two inch meter it is 7.3 times. Although both Staff and Company support a consolidated 5/8 inch sewer Basic Service Charge Flat Rate in the $32 to $34 dollar range, we are concerned about the higher rates Staff used for the larger water meter sizes. We alternatively recommend using the Company's multiples.

<u>SUPPORT FOR A VARIATION OF STAFF'S RATE CONSOLIDATION SCENARIO 1</u>

Q. HOW CAN THE COMMISSION MAKE ACCEPTABLE TO CUSTOMERS OF SUN CITY AND MOHAVE THE HIGHER RATES ASSOCIATED WITH STAFF'S STATE-WIDE RATE CONSOLIDATION SCENARIO?

A. The Commission can order a transition period of, say, three years, four years or five years, during which each district will complete a transition from stand-alone to consolidated rates. ***In each year of the transition, the transition rates are designed to produce the total revenue requirement.*** This would reduce the rate impact on, for example, Sun City customers, by raising rates more slowly and would consequentially slow down the rate reduction for the high rate districts such as Tubac. The Company's consultant, Ms. Heppenstall, presents a three-step transition alternative in her testimony which is a variation on Staff's scenario one but uses the Company's rebuttal revenue requirement for the districts in this case. Scenarios with more steps can be created.

Q. ARE THEY ANY OTHER MAJOR DIFFERENCES IN THE COMPANY'S VARIANT AS COMPARED TO STAFF'S SCENARIO 1?

A. Yes. At the rate consolidation training session, it was proposed and discussed that it is desirable to consolidate the monthly minimum charges for the residential 5/8 inch, 3/4 inch and 1 inch meter customers. The 1 inch meter customers generally have fire sprinklers installed in their homes and pay a much higher monthly minimum charge as a result. It is not unusual for the Company to receive a request from a customer to downsize a 1 inch meter to a smaller meter in order to obtain a lower monthly minimum charge. The Company is troubled by this occurrence as the 1 inch meter size is the appropriate meter size for a home with fire sprinklers, but we are generally not able to deny such a request from a determined customer.

Q. DID STAFF RECOMMEND TOO FEW RESIDENTIAL RATE TIERS?

A. Yes, the Company's variation on Staff's scenario one recommends five tiers. Staff recommends three. Paradise Valley presently has five and Tubac four. Staff's recommendation for a first tier of 0 to 3,000 gallons is good, but their third tier begins at 10,000 gallons for all remaining consumption. However, several of the Company's districts have significant residential water consumption at much higher levels.

<u>OPPOSE STAFF'S RATE CONSOLIDATION SCENARIOS 2 and 3</u>

Q. WHY DOES THE COMPANY BELIEVE NO OTHER SUB-GROUPINGS OF THE COMPANY'S DISTRICTS ARE SENSIBLE?

A. Staff scenarios Two and Three are essentially arbitrary combinations of various Company's districts that are difficult to justify to customers. These groupings will not reduce the number or frequency of rate cases, but will make odd combinations of communities. Grouping Sun City and Sun City West together is very difficult because, for example, residents of Sun City will object to paying for Sun City West's arsenic facilities and later Sun City West residents will object to paying for upgrades to Sun

City's much older infrastructure. I cannot understand the basis for grouping the small groundwater based Paradise Valley district with the much larger surface water based communities of Anthem and Agua Fria. I cannot find any good reasons either to combine the much larger Mohave district with Tubac. Staff did not state their reasons for their groupings. If the Commission determines that rate consolidation is appropriate, the only sensible and valuable long-term approach is state-wide rate consolidation with a transition percentage that mitigates the short-term increases.

CONSISTENT NON-POTABLE WATER RATES

Q. EVEN IF THE COMMISSION DOES NOT ADOPT CONSOLIDATED RATES, DO YOU RECOMMEND A CONSISTENT STATE-WIDE FRAMEWORK FOR NON-POTABLE RATES BE AUTHORIZED?

A. Yes, for several reasons. The Company provides non-potable water in three forms: treated effluent, raw CAP water and raw untreated groundwater. The Company believes the Commission should establish associated tariffs with incentives to use these alternative sources of water instead of using potable water and that the pricing of these three non-potable sources be sensible in comparison to a potable water benchmark. As a starting point, the Company recommends effluent receive a 50% discount, raw CAP water a 30% discount and raw groundwater a 20% discount as compared to a benchmark commercial second tier rate (whether a consolidated or district stand-alone benchmark). The Company's Mr. Townsley can address this concept and the reasons for the discounts, in part, because they are being discussed in the Arizona blue ribbon water panel underway.

Q. WHAT'S THE PRESENT SITUATION IN THE COMPANY'S TERRITORY?

A. In Agua Fria district, Verrado takes primarily effluent, but also some raw CAP water. Corte Bella uses raw groundwater. In Sun City, Coyote Lakes uses raw groundwater and

many other Sun City irrigation accounts use potable water. Coyote Lakes is not that far from the Company's Northwest Valley regional wastewater treatment facility and could alternatively utilize treated effluent if given a strong incentive. In Anthem, only effluent is used. Verrado presently pay the highest rates for treated effluent irrigation at $2.728 per kgals and Staff has proposed $2.56 per kgals for Anthem, yet they rely on effluent for which the Company recommends a 50% discount relative to potable pricing. In Sun City, irrigation accounts are using potable water and paying only $0.85 per kgals. So, these tariffs are upside down from where they need to be from a policy perspective.

Q. DOES THE COMPANY HAVE A SPECIFIC PROPOSAL FOR DISCOUNTED NON-POTABLE RATES AT THIS TIME?

A. No, however the Company has heard from Verrado, Anthem and Corte Bella that current and proposed rates are exacerbating their financial difficulties at this time and the Company has encouraged Verrado and Corte Bell to intervene in the case to argue their position. Anthem Golf Course has already intervened. At this point, the Company is sensitizing the parties to this issue and asking the Staff and RUCO to consider a more sensible pricing of non-potable water such that Anthem and Agua Fria's non-potable rates would decrease and Sun City water's irrigation potable tariff would increase. This could be accomplished whether stand-alone or rate consolidation is authorized. For purposes of the Company's variant on Staff's consolidation scenario one, the Company has used a non-potable rate of $2.50 per kgal for the time being as a placeholder.

Q. DOES THIS CONCLUDE YOUR REBUTTAL OF STAFF'S RATE DESIGN AND RATE CONSOLIDATION TESTIMONY IN THIS CASE?

A. Yes, for this submittal, but with the caveat that several issues remain open at this time which will be further addressed by the Company on May 14, 2010.

REBUTTAL OF STAFF EXHIBIT TMB-1 ANTHEM TIERED WATER RATES STUDY

Arizona-American Water Company's Anthem Water District: The Effect of Tiered Water Rates on Water Consumption

Prepared by Miles H. Kiger, Rate Analyst, Arizona-American Water Company

March 8, 2010

I. Introduction

In Arizona Corporation Commission ("ACC") Decision No. 70372, which authorized a permanent rate increase for Arizona-American's Anthem Water District, Arizona-American was ordered to conduct a study of the effect that tiered water rates approved in Decision No. 70372 would have on water consumption in the Anthem Water District ("Anthem"). The ACC was interested in knowing whether and by how much rate increases and rate tier blocks was causing water conservation.

The following study was conducted in compliance with this Decision.

This study chose to measure the effect that tiered water rates have on residential water consumption in Anthem by comparing pre-rate increase water consumption to post-rate increase water consumption for a large sample of Anthem water customers. Under this comparative framework, a variety of statistics were developed to answer a range of questions related to water consumption behavior in Anthem.

ACC Decision No. 70372 authorized a permanent rate increase that became effective on June 4, 2008 which changed both the rates and the tier blocks. Previously, Anthem had a three-tiered rate structure with rate blocks between 0-4,000 gallons, 4,001-18,000 gallons, and >18,000 gallons. The current rate structure defines three rate blocks between, 0-4,000 gallons, 4,001-10,000 gallons, and >10,000 gallons. Thus the current rate design, effective June 4, 2008, had the effect of shortening the second tier by 8,000 gallons, and thereby beginning the third tier 8,000 gallons sooner. The commodity price paid by customers for each 1,000 gallon increment associated with the rate blocks also increased June 4, 2008.

Table 1. Current Anthem Residential Water Rate Structure Following June, 2008 Rate Increase

Meter Size		Tier One		Tier Two		Tier Three	
	Basic Service Charge	Commodity Rate (per 1,000 gallons)	First Tier Breakover (gallons)	Commodity Rate (per 1,000 gallons)	Second Tier Breakover (gallons)	Commodity Rate (per 1,000 gallons)	Third Tier Breakover
Residential 5/8-inch and 3/4-inch meter customers	$17.53	$1.54	4,000	$2.41	10,000	$3.08	Infinite

Table 1 summarizes the current residential water rate structure in Anthem for the meter sizes with the vast majority of residential customers. Table 2 summarizes the previous rate structure. The unit price for first tier volumes (whose volume allocation was unchanged by the rate increase) changed from $1.13 to $1.54 per 1,000 gallons, a 36% increase. The unit price for second tier volumes changed from $1.70 to $2.41 per 1,000 gallons, a 42% increase. The second tier was also shortened by 8,000 gallons. The unit price for third tier volumes changed from $2.04 to $3.08 per 1,000 gallons, a 51% increase. The third tier also begins 8,000 gallons sooner. For

Table 2. Anthem Residential Water Rate Structure Prior to June, 2008 Rate Increase

Meter Size		Tier One		Tier Two		Tier Three	
	Basic Service Charge	Commodity Rate (per 1,000 gallons)	First Tier Breakover (gallons)	Commodity Rate (per 1,000 gallons)	Second Tier Breakover (gallons)	Commodity Rate (per 1,000 gallons)	Third Tier Breakover
Residential 5/8-inch and 3/4-inch meter customers	$15.00	$1.13	4,000	$1.70	18,000	$2.04	Infinite

the average residential customer (one who consumes 9,000 gallons a month), the rate increase had the effect of increasing monthly water bills by 27%.

After reviewing the rate structure and unit price changes that arose from the rate increase it will be useful to discover how consumption changed in the Anthem district and whether certain pre-rate increase consumption groups behaved differently than others following the rate increase. Of particular interest will be the group of customers who formerly were consuming in the second tier, in the volume range of 10,001-18,000 gallons, but following the rate increase are now consuming in the third tier. The unit price of this 8,000 gallon range increased by 81%. Thus there would be an intuitive expectation that the group of customers who were consuming in this range prior to the rate increase would alter their consumption habits more than customers in the other tiers because of their greater price incentive to conserve.

By deploying an analytical framework that compares pre-rate increase water consumption to post-rate increase water consumption for a large sample of customers, this study aims to provide a useful evaluation of the effect that tiered water rates have on residential water consumption in Anthem. As part of its overall evaluation, this study makes use of tables and graphs to provide visual representations of consumption trends, in addition to a descriptive written narrative.

This study is organized as follows: a description of the sample data that was used to generate statistics; the statistical results presented in tables and graphs; a discussion and interpretation of the statistical results; and concluding remarks regarding the study's findings.

II. Sample Data

A 26-month period spanning from June, 2007 through July, 2009 was used as the sampling period for this study. A sampling period ending July, 2009 was chosen because this would provide 12 months of data following the rate increase effective June 4, 2008. Also, by choosing July, 2009 as the ending month of the sample period an equal number of pre and post rate increase months were examined.

The sample period was broken into two 13-month periods, the first running from June 2007 thru June 2008 (Period 1, pre-rate increase), and the second from July 2008 thru July 2009 (Period 2, post-rate increase). This created identifiable periods of pre-rate increase (Period 1) and post-rate increase (Period 2) that eased the comparative analysis and discussion of the study's results.

Of the roughly 8,325 residential Arizona-American customers who have 5/8" or 3/4" meter sizes in Anthem, a sample of 5,671 residential customers was used for this study. This represents nearly 70% of residential customers. The criteria to be included in the sample were that each residential account had to be continuously active for at least 23 of the 26 months in the sample period with the same account number. By requiring at least 23 of 26 months of active consumption, the study maintained nearly a 90% continuity in consumption activity while allowing the sample to be as large as possible. Furthermore, continuously active accounts were required in order to maintain confidence that the same customer was present prior to, and after, the rate increase and thus their objectives concerning water conservation would be incorporated in that account's consumption figures. For those account numbers that had one, two, or three missing values, the missing value(s) were filled in using the median value of the remaining actual consumption figures. This process affected less than one percent of accounts and thus posed no significant risk of distorting consumption figures.

Although relying upon the same account numbers throughout did not control for all impacts of water usage at the customer level (e.g., having a child, building a swimming pool, losing a job, etc), it did help to minimize even larger impacts (e.g., a home sale with different home occupants).

III. Results/Discussion

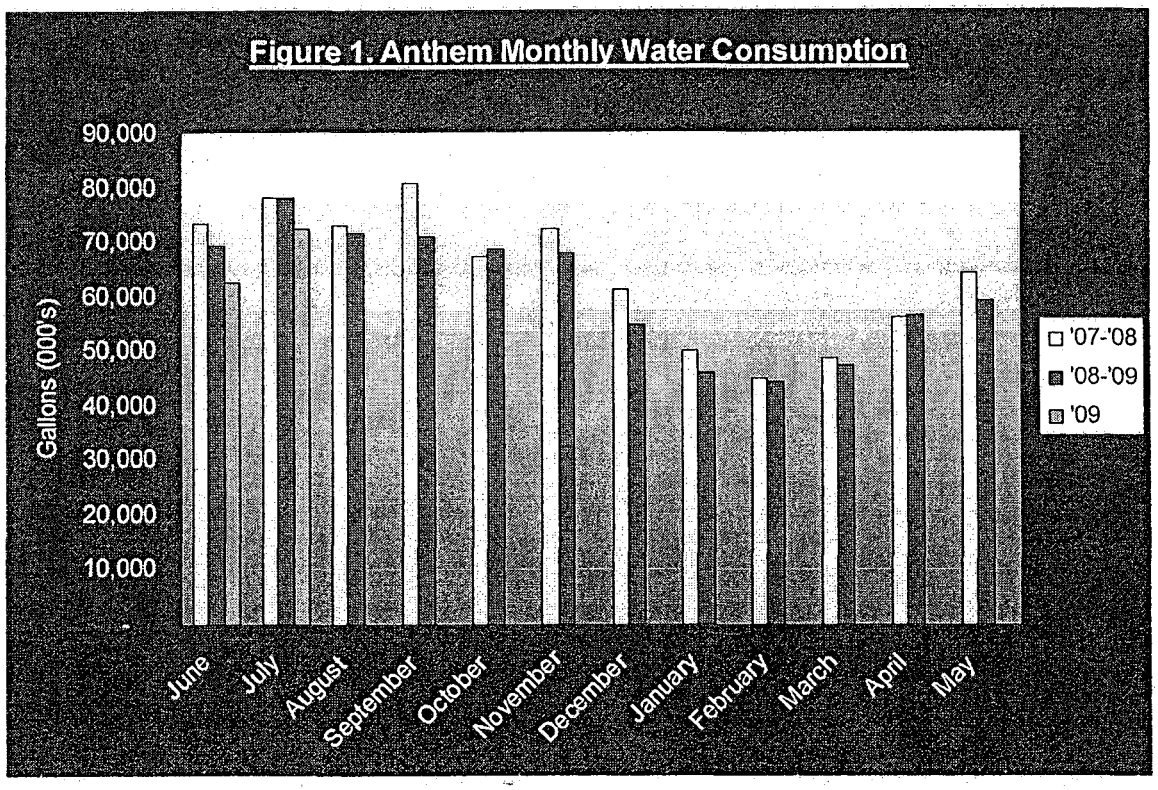
To determine what effect tiered rates would have on water consumption in Anthem, a range of questions were developed that required statistical calculations. The resultant statistics help provide important descriptive information regarding water consumption in Anthem. First, how did aggregate water consumption among the sample group change over time.

Table 3 shows the aggregate water consumption of the sample group for both Period 1 (pre-rate increase) and Period 2 (post-rate increase). As can be seen in Table 3, there was a decrease of 41 million gallons in consumption from Period 1 to Period 2, for the sample.

Table 3. Anthem Aggregate Water Consumption by Sample Period

Sample Period	Water Consumption (in 000's of Gallons)	Percentage of Total
1 (June 2007 - June 2008)	842,171	51.3%
2 (July 2008 – July 2009)	800,909	48.7%
Total	1,643,079	100%

This amounts to a five percent decrease in total consumption across periods. Furthermore, Figure 1 shows water consumption by month for the entire sample period. Except for the month of October, each month's consumption decreased or remained unchanged following the June 2008 rate increase relative to the same month in the prior year.



From contemplating these initial consumption statistics by period a number of important questions arise that deserve examination. Principally, if Anthem customers decreased consumption (conserved) following the June 2008 rate increase, by how much did they conserve on average?

Not all Anthem customers conserved on a net basis after the rate increase. From the period July 2008 to July 2009 (Period 2), 3,283 customers of the sample's 5,671 customers decreased their consumption on a net basis relative to Period 1 (net basis means summing all the monthly decreases and increases in consumption for a given customer relative to the same month in the prior year). This represents almost 58% of the entire sample group. Conversely almost 42% of the sample group increased, or left their consumption unchanged, on a net basis. The average decrease in consumption for the 3,283 customers who did conserve on a net basis was 31,270 gallons, which translates into an average of 2,410 gallon per month decrease for Period 2. Conversely, for the 42% of customers who increased their consumption on a net basis their average increase for Period 2 was 24,100 gallons, which translates into an average of 1,850 gallon per month increase. Thus on a net basis, Anthem customers each conserved 560 gallons per month on average in Period 2.

Taking this train of thought further, how did customers change their consumption habits relative to the rate structure in Anthem? Prior to the June 2008 rate increase, Anthem had a three-tiered, increasing block rate structure, with the first tier ranging from 0-4,000 gallons, the second from 4,001-18,000 gallons, and the third greater than 18,000 gallons. After the June 2008 rate increase became effective, Anthem maintained a three-tiered, increasing block rate structure, but the tier breakpoints changed. The first tier remained 0-4,000 gallons, but the second shifted to between 4,001-10,000 gallons, and the third greater than 10,000 gallons. Thus the best way to analyze the behavior of customers is to break the rate structure into four tiers, so that both the pre- and post-rate increase rate structures are preserved and the analysis not duplicated. This is accomplished by differentiating the rate tiers into a group whose consumption is greater than 18,000 gallons per month, one that is between 10,001-18,000 gallons, one that is between 4,001-10,000 gallons, and one that is less than or equal to 4,000 gallons.

In order to analyze the behavior of customers relative to the rate structure it is necessary to track them individually to understand their collective behavior. For example, an individual customer may consume in each of the four tiers over the course of the sample period. Some may consistently consume in the same tier. Therefore it is difficult to label a group of customers as "third tier" or "second tier", etc., because of changes in consumption over time. Due to this fluctuation, it is necessary to take a month-by-month approach to the distribution of customers among the consumption tiers. Table 4 (on the next page) summarizes how customers who consumed in a given consumption tier in one month changed (or did not change) their consumption in the same month the following year. By representing consumption changes on a monthly basis, customers of a given consumption tier can be tracked to know how their consumption changed following the rate increase.

By examining Table 4 one can see the general patterns of how a consumption tier group reacted to the rate change. For example, of the 1,149 customers who consumed in the fourth tier in June of 2007, 56.2% of them also consumed in the fourth tier one year later. Interestingly, 34.4% of them consumed in the third tier a year later, 8.2% in the second tier, and 1.2% in the first tier. For each consumption tier in each month, Table 4 shows the distribution of that exact group of customers among the four tiers in the same month one year later.

Since the rate increase occurred June 2008, the question was posed as to consuming behavior for comparable months pre and post rate increase. For example, in the fourth tier, 65.8% of customers in the fourth tier in July 2007 still consumed in that tier in July 2008, but by July 2009, only 59.5% of those consuming in the fourth tier were still at that level. Similarly compare the third tier (10,001-18,000 gallons) where, 57.2% of customers who consumed in the third tier in June 2007 also did so in June 2008, whereas only 52.9% of customers who consumed in the third tier in June 2008 also did so in June 2009. Another example comes from the first tier where, 60.3% of customers who consumed in the first tier in June 2007 also did so in June 2008,

whereas 73.6% of customers who consumed in the first tier in June 2008 also did so in June 2009. This trend may demonstrate customers' increased awareness of higher water rates and their reluctance to increase consumption in the case of the first tier example, or their desire to decrease consumption in the case of the third tier example.

Table 4. Distribution of Customers Among Tiers In Same Month One Year Later

		June07	July07	Aug07	Sept07	Oct07	Nov07	Dec07	Jan08	Feb08	Mar08	Apr08	May08	June08	July08	
	Monthly Customer Total	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	5,671	Monthly Average
4th Tier	Total Cust in Tier	1,149	1,300	1,133	1,382	894	1,041	618	325	237	301	513	767	957	1,269	849
	4th Tier	**56.2%**	**65.8%**	**61.9%**	**54.6%**	**60.2%**	**57.1%**	**40.5%**	**26.5%**	**30.4%**	**32.6%**	**42.9%**	**51.0%**	**54.0%**	**59.5%**	**49.1%**
	3rd Tier	34.4%	26.4%	28.3%	34.6%	27.9%	31.2%	39.2%	41.5%	37.6%	39.2%	37.2%	36.2%	33.5%	31.0%	34.3%
	2nd Tier	8.2%	6.8%	7.9%	10.1%	10.2%	10.4%	17.0%	26.2%	25.3%	24.9%	18.1%	11.6%	10.8%	8.0%	14.2%
	1st Tier	1.2%	1.0%	1.9%	0.8%	1.8%	1.3%	3.4%	5.8%	6.8%	3.3%	1.8%	1.2%	1.7%	1.5%	2.4%
3rd Tier	Total Cust in Tier	1,770	1,695	1,639	1,745	1,675	1,724	1,627	1,203	954	1,188	1,496	1,706	1,817	1,745	1,570
	4th Tier	12.8%	18.1%	17.5%	13.4%	18.7%	16.4%	10.7%	8.5%	9.5%	10.2%	15.0%	10.9%	10.7%	15.9%	13.1%
	3rd Tier	**57.2%**	**56.8%**	**54.2%**	**53.5%**	**55.9%**	**52.0%**	**48.0%**	**39.6%**	**45.0%**	**46.0%**	**53.0%**	**51.2%**	**52.9%**	**55.7%**	**51.3%**
	2nd Tier	28.1%	23.5%	26.1%	30.3%	23.8%	28.9%	38.1%	46.9%	38.6%	39.4%	29.0%	34.1%	33.5%	26.0%	32.4%
	1st Tier	1.9%	1.7%	2.2%	2.8%	1.7%	2.7%	3.2%	5.1%	6.9%	4.4%	3.0%	3.8%	2.9%	2.4%	3.2%
2nd Tier	Total Cust in Tier	1,979	1,857	2,023	1,843	2,210	2,179	2,638	2,939	3,020	2,976	2,696	2,355	2,120	1,916	2,339
	4th Tier	3.6%	4.7%	4.2%	3.2%	4.3%	2.9%	1.9%	2.2%	2.1%	1.6%	2.8%	2.8%	2.1%	2.7%	2.9%
	3rd Tier	18.7%	21.5%	21.0%	15.3%	22.7%	18.2%	13.6%	12.0%	14.1%	14.3%	17.2%	15.2%	13.9%	16.9%	16.5%
	2nd Tier	**64.4%**	**62.5%**	**61.6%**	**66.8%**	**63.5%**	**65.8%**	**67.3%**	**66.7%**	**68.7%**	**68.7%**	**69.3%**	**67.9%**	**65.9%**	**65.9%**	**66.1%**
	1st Tier	13.3%	11.3%	13.2%	14.7%	9.5%	13.1%	17.3%	19.1%	15.2%	15.4%	10.8%	14.0%	18.2%	14.6%	14.5%
1st Tier	Total Cust in Tier	773	819	876	701	892	727	788	1,204	1,460	1,206	966	843	777	741	912
	4th Tier	1.7%	2.6%	1.5%	1.7%	1.5%	0.8%	0.6%	0.7%	0.5%	0.7%	0.7%	0.6%	0.5%	0.5%	1.0%
	3rd Tier	5.0%	4.9%	5.6%	4.3%	4.4%	4.0%	2.4%	2.1%	2.5%	3.5%	2.6%	2.4%	1.9%	2.0%	3.4%
	2nd Tier	33.0%	32.8%	31.4%	26.0%	32.6%	27.1%	27.2%	27.9%	30.2%	30.3%	34.5%	28.6%	23.9%	28.2%	29.2%
	1st Tier	**60.3%**	**59.7%**	**61.5%**	**68.0%**	**61.5%**	**68.1%**	**69.8%**	**69.4%**	**66.8%**	**65.5%**	**62.2%**	**68.4%**	**73.6%**	**69.2%**	**66.3%**

Table 4 shows the distribution of customers among the consumption tiers in the same month one year later. For instance, in June of 2007 there were a total of 5,671 customers in the sample, 1,149 consumed in the fourth tier, 1,770 in the third tier, 1,979 in the second tier, and 773 in the first tier. For any one of the tiers (marked by the boxes farthest to the left with vertical lettering), the percentages beneath that tier's customer count for the month indicated by the top line are the percentage of customers who remained in that particular consumption tier one year later. So, in June of 2007, of the 773 customers who consumed in the first tier, 60.3% of them also consumed in the first tier in June of 2008, 33% moved to the second tier in June 2008, 5% to the third, and 1.7% to the fourth. The percentages indicate how that exact group of customers in that tier consumed in the same month one year later.

To complement Table 4, Table 5 shows the household change in consumption relative to the prior period for the tier consumption groups by month. For the group of customers in the third tier example in the preceding paragraph, per capita consumption decreased by 450 gallons in June of 2008 relative to June 2007. On average, the third tier consumption group decreased their consumption by 680 gallons per customer per month in the period following the rate increase. Remember, on average, Anthem customers decreased consumption by 560 gallons per customer per month following the rate increase. Similarly, on average, the fourth tier consumption group decreased their consumption by a large 7,580 gallons per month in the period following the rate increase. This large per capita decrease suggests that consumption at the upper end of the range was more discretionary in nature. Conversely, the second and first tier consumption groups both increased their per capita monthly consumption in the period following the rate increase, which probably is due to the fact that, for customers who are already at or near the low end of their consumption thresholds, any changes in consumption are likely non-discretionary consumption increases. Nonetheless, the data from June and July 2009 for the second and first tier consumption groups show a declining trend compared with the same months in the prior year.

Table 5. Per Capita Change In Consumption Relative to Prior Period (000's Gallons)

	June08	July08	Aug08	Sept08	Oct08	Nov08	Dec08	Jan09	Feb09	Mar09	Apr09	May09	June09	July09	Average
4th Tier	-6.64	-4.59	-5.61	-7.70	-5.52	-6.76	-8.92	-12.48	-12.10	-9.99	-6.96	-6.41	-6.54	-5.83	-7.58
3rd Tier	-0.45	0.31	0.18	-1.09	0.48	-0.25	-1.28	-1.84	-1.57	-1.20	-0.17	-1.22	-1.11	-0.24	-0.68
2nd Tier	1.06	1.65	1.40	0.65	1.65	0.87	0.12	0.29	0.65	0.43	0.95	0.52	0.34	0.66	0.80
1st Tier	1.84	2.28	1.94	1.39	2.07	1.25	1.05	1.21	1.20	1.33	1.39	1.07	0.86	1.10	1.43

To this point, this study has attempted to define certain customer sub-groups based on their consumption levels and to describe their consumption patterns relative to the changing rate structure and price signals due to the June 2008 rate increase. This analysis has been focused on determining where most of the conservation has been occurring relative to the rate structure and discovering whether certain sub-groups who have a greater price incentive to decrease their consumption have actually done so more than an average customer. Within this analytical framework, another interesting question to ask then is, if an Anthem customer consumed near a tier breakpoint in Period 1, did they decrease consumption more than the average level of decrease per customer per month in Period 2?

To answer this, it is necessary to know what the average level of consumption decrease was per customer per month between Period 1 and Period 2. In Period 1 the average consumption per customer per month was 11,420 gallons. For Period 2 average consumption was 10,860 gallons. Thus the average decrease per customer per month was 560 gallons in Period 2.

An Anthem customer who consumed near a tier breakpoint is defined as anyone who consumed within 3,000 gallons above a tier breakpoint. 3,000 gallons seemed a substantial enough change yet attainable. This means anyone consuming between 18,001-21,000 gallons, anyone consuming between 10,001-13,000 gallons, or anyone consuming between 4,001-7,000 gallons. In total there were 4,686 customers who, if defined as consuming near a tier breakpoint, decreased their consumption for at least one month in Period 2. This is nearly 83% of the sample group of 5,671 customers. In Period 1, this group of customers' average consumption per month was 10,940 gallons. In Period 2 their average consumption was 10,100 gallons. Thus the average decrease per customer per month was 830 gallons in Period 2, which confirms that those individuals who were consuming near a tier breakpoint prior to the June 2008 rate increase did decrease their consumption more (48% more) than the average level of decrease per customer per month. This result suggests that customers who faced a smaller hurdle in order to drop into a lower rate tier were more inclined to do so and thus conserved more than the average Anthem customer.

Table 6. Average Decrease Per Customer Per Month Near a Tier Breakpoint vs. Sample Average Decrease Per Customer Per Month Between Periods

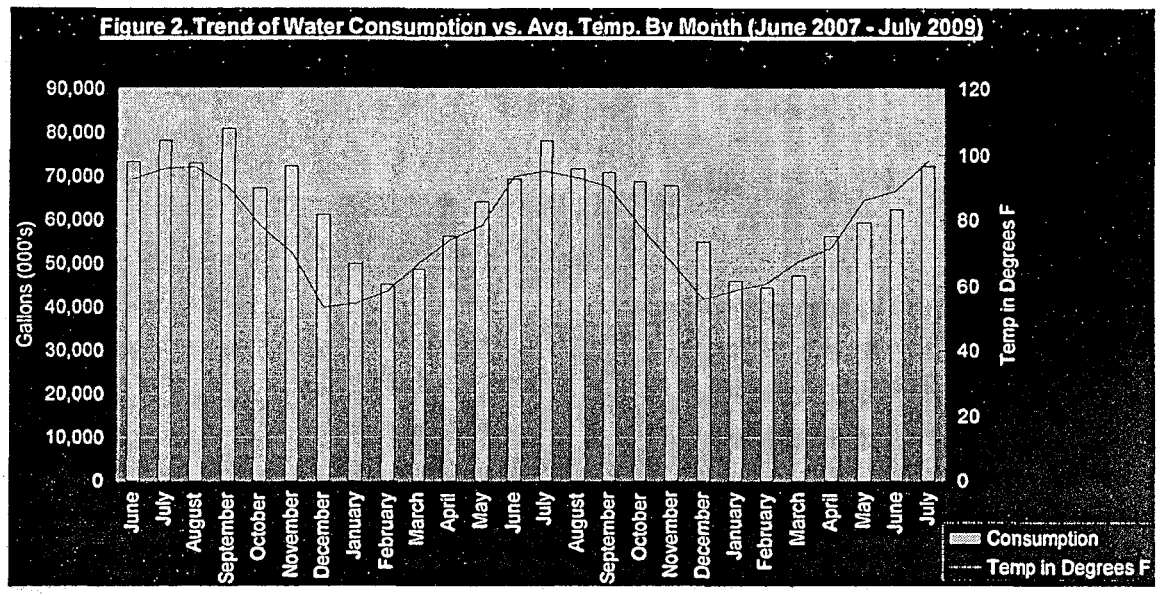
	Near a Tier Breakpoint	Total Sample
Per Capita Decrease Per Month, in Gallons	830	560

How Did the Weather Impact Period 1 versus Period 2

The Period 1 monthly average temperature was 77.1 degrees Fahrenheit. The Period 2 monthly average temperature was 77.7 degrees Fahrenheit. Period 1 experienced 9.14 inches of rainfall and for Period 2 it was 9.01 inches of rainfall.

Weather has an impact on the amount of water customers use over the course of the year. Whether it is due to fluctuations in temperature or rainfall or both, the weather can affect

customer water usage. In Phoenix in the summer months, when average daily temperatures are highest, customer daily water requirements are also higher, usually due to outdoor water use. Figure 2 shows the relationship of total monthly water consumption of the Anthem sample group compared with the average daily temperature. As can be seen, these two statistics are highly visually correlated and track very tightly together. Also, the spread between summer month and wither month consumption totals is striking. The average spread between summer (May-Oct.) and winter (Nov.-April) for the sample period was roughly 15 million gallons, with the max spread at nearly 35 million gallons.



Rainfall also has an effect on water consumption, as it substitutes some of the outdoor watering that is required of customers. Figure 3 shows the trend of monthly rainfall totals (taken from the Anthem Water District facility) compared to monthly water consumption in Anthem. Unlike the visual correlation demonstrated by Figure 2, between water consumption and average daily temperature, little correlation appears between water consumption and monthly rainfall totals for the sample period.

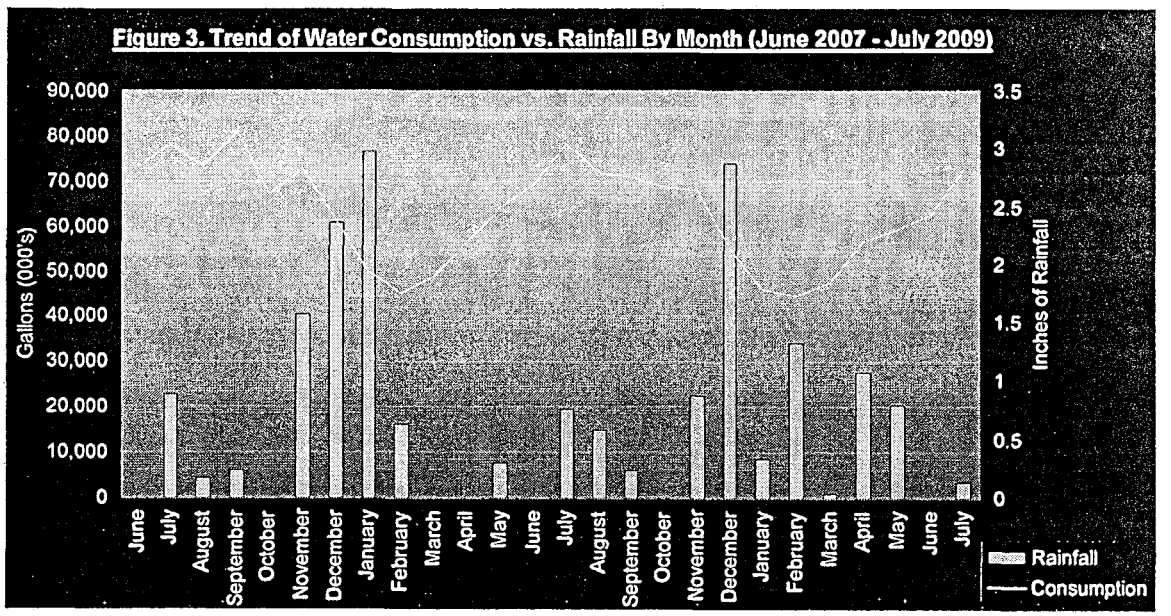


Table 7 reports the statistical linear correlation of the sample water consumption to the sample rainfall and temperature. The correlation values indicate a weak negative correlation between sample water consumption and rainfall, and a strong positive correlation between sample water consumption and temperature. In general terms, this indicates that greater water consumption tends to correlate with less rainfall (albeit weakly), and greater water consumption tends to correlate with higher temperatures (strongly). It should be noted, however, that by examining Figure 3 one can see that most of the rainfall recorded during the sample period falls during winter months when outdoor watering demands are less than during the summer. One would expect that if more of the rainfall occurred during summer months, overall water demands would be less that they would have otherwise because outdoor watering would be supplemented by the rainfall to a greater extent. This would likely have an effect on the correlation statistic between water consumption and rainfall under this hypothetical scenario, and may provide a context with which to view the actual correlation statistic of the sample data.

Table 7. Correlation of Sample Water Consumption to Sample Rainfall and Temperature

	Rainfall	*Temperature*
Water Consumption	-0.251981534	0.793451689

Table 8 displays the monthly average temperatures (National Weather Service data for Phoenix) that are used in Figure 2 for the 26 month sample period. If the data for the first 13 month period (Period 1) is averaged, the Period 1 monthly average is 77.1 degrees Fahrenheit. If the same is done for the second 13 month period (Period 2), the Period 2 monthly average is 77.7 degrees Fahrenheit. All other things equal, one would expect that water consumption would have increased in Period 2 relative to Period 1 due to the higher average temperatures. However, as Table 3 shows, water consumption decreased five percent, or 41 million gallons, between periods. This fact suggests that, even despite the strong positive correlation between average monthly temperatures and water consumption for the sample data, Anthem customers may have chosen to decrease (conserve), rather than increase, their consumption in the face of higher average temperatures due to observed price signals (higher water rates).

Table 8. Monthly Average Temperatures (in Degrees Fahrenheit) for 26 Month Sample Period

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2007						92.7	95.8	96.2	90.3	78.2	70	53.2	76.4
2008	54.7	58.3	66.7	74	78.5	93.2	94.9	92.9	89.9	77.9	67.1	55.8	75.4
2009	58.7	60.7	67.5	71.4	86.2	88.7	98.3						75.9

Table 9 displays the monthly rainfall totals recorded at the Anthem Water Campus for the 26 month sample period. The rainfall graphic depicted in Figure 3 utilizes these same data. If the data for the first 13 month period (Period 1) is totaled, the total is 9.14 inches of rainfall. If the same is done for the second 13 month period (Period 2), the total is 9.01 inches of rainfall. This indicates there was a slight decrease in rainfall between periods, and despite the weak negative correlation between water consumption and rainfall for the sample data, water consumption decreased as well. Thus this fact also suggests that Anthem customers may have chosen to decrease water consumption based on observed price signals (higher water rates) despite less rainfall.

Table 9. Monthly Rainfall Totals (in Inches) for 26 Month Sample Period

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2007						0.00	0.89	0.16	0.24	0.00	1.57	2.37	5.23
2008	2.98	0.63	0.00	0.00	0.30	0.00	0.76	0.58	0.24	0.00	0.87	2.87	9.23
2009	0.33	1.32	0.04	1.08	0.79	0.00	0.13						3.69

Income Effects

Income is another variable that could have an influence on water consumption habits. Unfortunately there was no consistent income data for the Anthem community that spanned the sample period used for this study. Thus without knowing how incomes have changed over time in Anthem, no comparisons could be made in the context of the water rate increase.

IV. Conclusion

This study has examined the short-term (1-year) impacts of Anthem's rate increase and new rate design effective June 4, 2008 on residential water consumption among the 5/8" and 3/4" meter customer group.

When viewed collectively, the statistical results of this study are very suggestive that Anthem water customers have indeed decreased their water consumption due to an increase in observed water prices experienced following the June 4, 2008 rate increase and new tiered rate design.

There are four main reasons why the resultant statistics to the questions posed earlier in this study are suggestive that the 2008 rate increase did have an effect on the aggregate water consumption decrease in Anthem. First, it is believed that there is a lag effect on the time it takes customers to respond to price changes, and this expectation is confirmed by the fact that year-over-year (for the two months of data for which this is applicable, June and July), aggregate water consumption continued to decline. This indicates that as time went on more and more customers became aware of the rate impact and consequently altered their consumption habits accordingly. Second, those customers who generally had the greatest price incentive to reduce their consumption (those in the third tier, consuming between 10,001-18,000 gallons per month) indeed decreased their consumption more than the average level of decrease per customer per month (a decrease of 680 gallons per customer per month, as opposed to the sample average of 560 gallons per customer per month). Third, customers who consumed near a tier breakpoint (and thus had a less formidable attempt at reducing their consumption to drop into a lower priced rate tier) also decreased their consumption more than the average level of decrease per customer per month (a decrease of 830 gallons per customer per month, as opposed to the sample average of 560 gallons). Fourth, despite a slight increase in average temperature from Period 1 to Period 2 (which would theoretically correlate with increased water consumption), and a slight decrease in rainfall from Period 1 to Period 2 (which would also theoretically correlate with increased water consumption), aggregate water consumption for the sample decreased by roughly 5% between periods.

Thus within the context of the rate tiers themselves, Anthem customers responded to the rate increase in a more or less expected fashion: on average, customers with a greater incentive to conserve did so. Furthermore, based on the temperature and rainfall patterns of the sample period, customers should have been induced to increase their consumption, theoretically, but did not, perhaps because of the new price signals they faced following the rate increase.

From the Company's perspective of desiring revenue stability, the 5% aggregate water consumption decrease for the sample has a significant downward effect on revenues derived from water sales, which is not considered in the rate setting process. Of the roughly $5,000,000 in annual residential revenues generated by water sales in Anthem, the volumetric component of those residential sales constitute 45%, or approximately $2,250,000, of the total sales. If the 5% aggregate water consumption decline from the sample used in this study is applied to the $2,250,000 figure, $112,500 is the amount that can be considered the estimated revenue lost due to water conservation in Anthem. This constitutes 2.25% of annual residential revenues generated from water sales lost within one year of the rate increase with additional erosion likely on a longer term. Future rate increases that bring water rates in line with the cost of providing water service in Anthem will to continue to have an impact on the amount of water usage in the Anthem community, which in turn has an effect on the cost of providing that service. The rate setting process is a cyclical, mutually conditioning process, where consumption affects the unit cost determination of the cost of service. It is very important to acknowledge this fact, as these cyclical dynamics will continually be at work. Moreover, if the rate structure in Anthem - or any community - were to continue to be fashioned with enhanced water conservation in mind, the degree to which that would have an effect on revenue stability would likely also be enhanced (i.e., decoupling). The implication of water conservation on revenue stability should be a matter of importance that should be addressed when matters of water conservation and rate design are addressed.

REBUTTAL OF STAFF EXHIBIT TMB-2 ANTHEM SEASONAL CONSUMPTION

Anthem Water District
Anthem Average Seasonal Residential Consumption

	Year		
	2007	2008	2009
Avg. No. of Winter Res Customers	8,347	8,285	8,299
Winter Consumption (Jan, Feb, Mar) in kgals	215,371	208,547[1]	196,349
Winter Per Capita Monthly Average (Avg of Jan, Feb, Mar)	8.6	8.2	7.9
Avg No. of Summer Res Customers	8,390	8,236	8,323
Summer Consumption (June, Jul, Aug, Sept) in kgals	336,219	317,933	315,759
Summer Per Capita Monthly Average (Avg of June, Jul, Aug, Sept)	10.0	9.7	9.5

*Source: JD Edwards statistical reports

[1] 2008 Winter consumption data taken from Orcom billing data, consistent with Staff DR 17.2, is 204,512

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER AND SUN CITY WATER DISTRICTS	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM / AGUA FRIA WASTEWATER, SUN CITY WASTEWATER AND SUN CITY WEST WASTEWATER DISTRICTS	DOCKET NO. SW-01303A-09-0343

RATE DESIGN REBUTTAL TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
MAY 14, 2010

EXHIBIT
A-40
ADMITTED

RATE DESIGN REBUTTAL TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
MAY 14, 2010

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EXECUTIVE SUMMARY

Thomas M. Broderick testifies in rate design rebuttal that:

The Company can accept a Commission order establishing a new effluent tariff for the Anthem / Agua Fria ***waste***water district. The Company, however, cannot accept DMB's proposed effluent price of $250 / acre foot.

The Company is willing to process applications from low income residents of HOAs to participate in Sun City's low income program so long as they provide some documentation to demonstrate where they live so that the Company knows precisely which HOA water account to provide the $4 per month discount.

The Company accepts Mr. Magruder's proposed miscellaneous charges.

The Company absolutely does **not** accept RUCO Mr. Moore's suggestion to forego the "entire authorized return" while phasing-in the increase over three years.

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Thomas M. Broderick. My business address is 2355 W. Pinnacle Peak Road, Suite 300, Phoenix, Arizona 85027, and my business phone is 623-445-2420.

Q. ARE YOU THE SAME THOMAS M. BRODERICK THAT SUBMITTED TESTIMONY ON BEHALF OF THE COMPANY IN THIS CASE ON JULY 2, 2009, ON MARCH 22, 2010 AND ON APRIL 7, 2010?

A. Yes.

Q. ARE THERE ANY OTHER COMPANY WITNESSES SUBMITTING TESTIMONY AT THIS TIME?

A. Yes. Ms. Connie Heppenstall, consultant, addresses the rate consolidation concepts and proposals including those presented by Mr. Neidlinger and Mr. Magruder in their May 3, 2010 testimonies and she addresses some updates and corrections to her rate consolidation model identified earlier by Commission Staff.

II STAND-ALONE RATE DESIGN

Q. HAS DMB ASSOCIATES, INC. ("DMB") TAKEN EXCEPTION TO A COMMISSION APPROVED NON-POTABLE WATER TARIFF?

A. Yes. Mr. Kelly of DMB believes the applicable non-potable tariff (under which both effluent and raw CAP water are provided) in the Agua Fria water district that was approved by the Commission in December 2009 (Decision #71410) is excessive at $2.728 per 1,000 gallons.

Q. DOES THE COMPANY ACCEPT DMB'S PROPOSAL TO ESTABLISH A NEW EFFLUENT TARIFF FOR THE AGUA FRIA / ANTHEM WASTEWATER DISTRICT AT DMB'S PROPOSED PRICE OF $250 PER ACRE FOOT?

A. In part, yes and in part, no. DMB seeks to take effluent under a new **waste**water tariff. The Company can accept a Commission order establishing a new effluent tariff for this ***waste***water district. As a result, upon an order being issued in this case approving such a tariff, DMB would receive effluent under an effluent tariff in this ***waste***water district rather than under an effluent tariff in the Agua Fria ***water*** district. DMB would continue to receive raw CAP water under the existing water tariff.

The Company, however, cannot accept DMB's proposed effluent price of $250 / acre foot. The Company, as presented in my April 7, 2010 rebuttal testimony (page 15, line 17), recommended effluent be priced at a 50% discount from a potable water benchmark price to incentivize its use. Since that testimony, the Company has further analyzed this issue and now proposes for the Agua Fria / Anthem wastewater district that the benchmark price for potable water be the Agua Fria water district commercial tariff's second tier existing rate of $3.27 per 1,000 gallons. Therefore, using a 50% discount applied to $3.27 per 1,000 gallons, the Company now recommends a specific effluent price of $1.635 per 1,000 gallons for the new effluent tariff in the Agua Fria / Anthem wastewater district. As DMB notes, DMB would continue to receive raw CAP water under the existing Agua Fria water non-potable tariff at $2.728 per 1,000 gallons to the extent it uses any raw CAP water.

Although this is significantly higher than DMB's proposed price of $250[1] per acre foot, the Company feels this is nevertheless a reasonable response to DMB since the Company is unable to change the other tariffs in the Agua Fria water district to compensate for the

[1] Or $0.7672 per 1,000 gallons.

loss in revenue requirement associated with reducing the effluent price from $2.728 to $1.635 per 1,000 gallons. DMB's comparison to the Mohave district is relevant only to the extent that it represents one data point in pricing effluent in Arizona. Mr. Kelly's Exhibit DTK-2 is not a complete list of effluent prices in Arizona. For example, it excludes Anthem.

DMB is a sophisticated organization and the Company recommends to DMB that it continue to intervene in the Company's future rate cases – regardless of the outcome in this case - in order to better protect its future interests and better share its perspective on effluent (and perhaps other issues).

Q. HOW IS THE PRICING OF EFFLUENT IN ANTHEM IMPACTED?

A As Anthem Golf and Country Club witness Mr. Howe correctly notes, the Company has proposed an effluent rate as part of its proposed pro-rata increase to Anthem ***water*** district tariffs of $2.5648 per 1,000 gallons in this case. Anthem Golf and Country Club currently pays $1.43 per 1,000 gallons for effluent under a non-potable water tariff. I presume that as part of the Anthem / Agua Fria wastewater district, they too would become eligible for the new effluent tariff in the wastewater district that DMB is seeking. Hence, unless a party demonstrates that this thinking is incorrect, the Company would plan on submitting this change in its final rate design schedules in this case.

III <u>LOW INCOME PROGRAM</u>

Sun City:

Q. IN THE HEARING, THE ALJ ENCOURAGED THE COMPANY TO FIND A WAY TO ALLOW SUN CITY RESIDENTS OF MULTI-HOUSING UNITS SUCH AS HOMEOWNER ASSOCIATIONS ("HOAs") TO PARTICIPATE IN THE EXISTING SUN CITY LOW INCOME PROGRAM. DOES THE COMPANY HAVE A PROPOSAL?

A. Yes. The Company is willing to process applications from low income residents of HOAs to participate in Sun City's low income program so long as they provide some documentation to demonstrate where they live so that the Company knows precisely which HOA water account to provide the $4 per month discount. It will then be up to each resident to contact its HOA to try to obtain the $4 per month credit the Company provides in the water bill in the resident's HOA bill. The Company has no involvement in the billings by HOAs to the HOAs' residents for the myriad of services (including water) being provided or billed by HOAs. The Company cannot be liable if an HOA does not provide a credit to the residents on the low income program. The resident is of course able to terminate his or her participation in the low income program at any time and that would cease the credit going forward. There may be some additional process requirements for HOA residents to participate that we have not yet identified. At worst, the $4 per month credit will be shared by all residents of that Sun City HOA. If the Commission views that as an issue, then the Company is open to discussion of another solution or recommends that the Commission deny adding HOA residents to the low income program.

Anthem:

Q. ANTHEM COUNCIL ASKED THE COMPANY DURING THE HEARING WHAT INFORMATION IS HELPFUL TO DESIGN A LOW INCOME PROGRAM FOR ANTHEM. WHAT IS THE STATUS NOW?

A. The Anthem Council later informed the Company that after considering the matter, the Anthem Council is not presently interested in supporting a low income program in Anthem. Therefore, Anthem Council did not provide a response to the Company's information requests. The results of the 2010 US Census will be informative as regards such a program in Anthem. Preliminary 2010 Census results will not be available until at least 2011.

IV RATE CONSOLIDATION

Q. MR. MAGRUDER FROM TUBAC PROPOSED CHANGES TO THE COMPANY'S MISCELLANEOUS CHARGES. DOES THE COMPANY ACCEPT HIS PROPOSAL IN TABLE 12 ON PAGE 32 OF HIS MAY 3, 2010 TESTIMONY?

A. Yes.

Q. RUCO'S MR. MOORE SUBMITTED REVENUE REQUIREMENT TESTIMONY RELATING TO A PHASE-IN OF RATES ON PAGE 5 OF HIS MAY 3, 2010 RATE DESIGN TESTIMONY. DOES THE COMPANY ACCEPT A PHASE-IN ON THE TERMS SUGGESTED BY MR. MOORE?

A. No. Although the Company objected to the admission of this testimony, the Company absolutely does **not** accept his suggestion to forego the "entire authorized return" while phasing-in the increase over three years. For the record, the Company does not accept foregoing any return and it does not accept a phase-in of Anthem's rates, in part, for the reasons earlier discussed in the hearing by Company President Mr. Townsley and more recently by Company witness Mr. James Jenkins in his May 7, 2010 testimony.

Q. RUCO'S MS. JERICH SUGGESTS THE COMPANY HAS SEPARATE "BOOKS" FOR EACH OF THE COMPANY'S SYSTEMS OR DISTRICTS. IS THAT CORRECT?

A. No. The Company's books for public accounting reporting purposes are kept at the Arizona-American consolidated level. We do have business units for each district (and some large facilities) where direct charges occur for costs such as electricity, but the majority of costs are incurred in the Arizona corporate business unit and in Service Company. Hence, the only real district level "books" we have are the schedules and exhibits prepared for the test year in a rate case. So, Ms. Jerich is accurate that rate consolidation – if it occurred company-wide – would mean that the Company would no longer prepare district level rate case "books" (A-H schedules and exhibits) unless ordered to do so. Rather, it would prepare rate case "books" at the state-wide company level.

Q. DOES THAT CONCLUDE YOUR RATE DESIGN REBUTTAL TESTIMONY?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA -AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT, AND SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM / AGUA FRIA WASTEWATER DISTRICT, SUN CITY WASTEWATER DISTRICT, AND SUN CITY WEST WASTEWATER DISTRICT	DOCKET NO. SW-01303A-09-0343

REBUTTAL OF STAFF RATE DESIGN TESTIMONY
OF
CONSTANCE E. HEPPENSTALL
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
APRIL 7, 2010

EXHIBIT
A-41
ADMITTED

REBUTTAL OF STAFF RATE DESIGN TESTIMONY
OF
CONSTANCE E. HEPPENSTALL
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
APRIL 7, 2010

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Rebuttal of Staff Exhibit CEH-1 Stepped Water Rates
Rebuttal of Staff Exhibit CEH-2 Stepped Wastewater Rates

EXECUTIVE SUMMARY

Ms. Heppenstall testifies as follows:

Ms. Heppenstall explains the rate consolidation model prepared for each of the operating districts for both water and wastewater for Arizona-American Water Company (Company). The purpose of the rate consolidation model is to aid the user in developing consolidated rates which produce the overall revenue requirements of the Company and to analyze the impact of rate consolidation for each operating district and customer class.

Ms. Heppenstall sponsors the Rate Consolidation Model, Version 1, 2 and Version 3.

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS

A. My name is Constance E. Heppenstall. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Gannett Fleming, Inc. as a Rate Analyst.

Q. PLEASE DESCRIBE YOUR POSITION WITH GANNETT FLEMING, INC. AND BRIEFLY STATE YOUR GENERAL DUTIES AND RESPONSIBILITIES.

A. As a Rate Analyst, my duties and responsibilities include the preparation of accounting and financial data for revenue requirements, the allocation of cost of service to customer classifications, and the design of customer rates in support of public utility rate filings.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I have a Bachelor of Arts Degree in Economics from the University of Virginia, Charlottesville, Virginia and a Masters of Science in Industrial Administration from the Carnegie-Mellon University's Tepper School of Business, Pittsburgh, Pennsylvania.

Q. WOULD YOU PLEASE DESCRIBE YOUR PROFESSIONAL AFFILIATIONS?

A. I am a member of the American Water Works Association and a member of the Pennsylvania Municipal Authorities Association.

Q. BRIEFLY DESCRIBE YOUR WORK EXPERIENCE.

A. I joined the Valuation and Rates Division of Gannett Fleming, Inc. in August 2006, as a Rate Analyst. Prior to my employment ant Gannett Fleming, Inc., I was a Vice President of PriMuni, LLP where I developed financial analyses to test proprietary software in order to ensure its pricing accuracy in accordance with securities industry's conventions.

From 1987 to 2001, I was employed by Commonwealth Securities and Investments, Inc. as a public finance professional where I created and implemented financial models for public finance clients in order to create debt structures to meet clients' needs. From 1986 to 1987, I was a public finance associate with Mellon Capital Markets.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Please refer to the Executive Summary, which precedes my testimony.

III. WATER AND WASTEWATER RATE CONSOLIDATION MODEL

Q. THE COMPANY DOCKETED A RATE CONSOLIDATION MODEL IN THIS CASE. DID YOU PREPARE THAT MODEL?

A. Yes. Using data from this case and the prior rate case supplied by the Company, I prepared the design of the model and the formulas therein.

Q. WHAT IS THE PURPOSE OF THE WATER AND WASTEWATER RATE CONSOLIDATION MODELS?

A. The purpose of the model is to allow the user to view the effects of consolidating rates across the operating districts of the Company to facilitate rate consolidation scenarios. The model enables the user to set homogeneous customer charges, consumption charges and rate blocks across operating districts, confirm the overall revenue produced by these rates matches the total authorized amount, and view the related customer impact of the consolidated rates through the use of bill comparison schedules.

Q. WHICH WATER OPERATING DISTRICTS ARE INCLUDED IN THE WATER RATE CONSOLIDATION MODEL?

A. All of the Company's water operating districts are included in the study, specifically, Sun City, Sun City West, Agua Fria, Anthem, Tubac, Mohave, Havasu and Paradise Valley water operating districts

Q. ARE ALL CLASSES OF CUSTOMERS INCLUDED IN THE WATER RATE CONSOLIDATION?

A. No, certain classes were excluded due to specific contracts or uniqueness to a specific system or there were no comparable classes in other districts to combine with. These classes include: C2M3 Arizona Water contract, C5M1 Agua Fria – OWU PI Surprise, A5M1 Sun City Public Interruptible – Peoria, E7M2 Anthem Wholesale (Phoenix) OWU and the apartment classes in Mohave and Havasu. The rates for these customers would remain stand-alone.

Q. WHICH WASTEWATER OPERATING DISTRICTS ARE INCLUDED IN THE WASTEWATER RATE CONSOLIDATION MODEL?

A. All of the Company's wastewater operating districts are included in the study, specifically, Sun City, Sun City West, Anthem / Agua Fria, and Mohave wastewater operating districts.

Q. ARE ALL CLASSES OF CUSTOMERS INCLUDED IN THE WASTEWATER RATE CONSOLIDATION?

A. No, certain classes were excluded due to specific contracts or uniqueness to a specific system or a lack of any comparable customer classes in other districts. These classes in the wastewater rate consolidation model include: A2MSP Sun City Sewer Paradise Park I/U, E5M2 Anthem Wholesale (Phoenix) OWU and P7A1 Mohave Sewer Effluent Sales. Again, the rates for these customers would remain stand-alone.

Q. WHY ARE THERE DIFFERENT VERSIONS OF THE MODEL?

A. There are different versions of the model as enhancements were made. The enhancements were a result of feedback from interested parties.

Q. PLEASE EXPLAIN THE DIFFERENT VERSIONS OF THE MODEL.

A. The model consists of three separate versions. Version 1 was the prototype that was presented to the Commission Staff and explained in a conference call on January 13, 2010. As a result of feedback during that call, namely the expressed desire for more flexibility in consumption blocks, Version 2 was created. This version was presented on February 10, 2010 at a training session for interveners and other interested parties at the Company's offices. Since then, Version 3 has been developed in response to feedback concerning the ability to transition to consolidated rates over three steps as well as feedback concerning consolidating the residential one-inch basic service charge with the 5/8 and 3/4 inch basic service charge. Staff used Version 2 of the model in its March 29, 2010 testimony updated with Staff's proposed revenue requirement submitted on March 8, 2010.

Q. WHAT IS THE STRUCTURE OF VERSION 1 AND 2 OF THE MODEL?

A. Versions 1 and 2 consist of five linked Excel files for the water rate consolidation model and three linked files for the wastewater rate consolidation model. The files consist of the following:

1. The Total file in which the user inputs the consolidated rates and blocking structures that flow through to the other files listed below.
2. The residential file which contains the calculation of revenue from residential customers and the related billing impacts by operating district.

3. The commercial file which contains the calculation of revenue from the commercial and OPA customers and the related billing impacts by operating district.

4. The non potable file, for the water rate consolidation model only, which contains the calculation of revenue from customers that purchase non-potable water and the related billing impacts by operating district.

5. The private fire file, for the water rate consolidation model only, which calculates the revenue from the private fire customers and the related billing impacts by operating district.

Q. CAN THE USER OF THE MODEL EXCLUDE CERTAIN OPERATING DISTRICTS FROM THE RATE CONSOLIDATION?

A. Yes. The model allows the user to decide which operating districts to include in the model. The Total file has inputs that control which districts are included. Staff's scenarios two and three used this feature of the model.

Q. WHAT REVENUE REQUIREMENT DOES THE MODEL USE AS A TARGET FOR THE CONSOLIDATED RATES IN THE WATER RATE CONSOLIDATION MODEL?

A. The original revenue requirement target in Versions 1, 2 and 3 was the Commission approved revenue requirement from Decision No. 71410 for the water districts that were included in the Docket W-01303A-08-0227 which included Agua Fria, Sun City West, Tubac, Mohave, Havasu and Paradise Valley and the Company's original requested revenue requirement for Sun City and Anthem included in this rate case, Docket W-01303A-09-0343. In subsequent iterations of Versions 2 and 3 of the model, the revenue requirements for Sun City and Anthem have been modified either to reflect the Staff's recommended revenue requirement or the Company's rebuttal revenue requirement.

Version 2 was updated by Staff internally to include their recommended revised non-consolidated rates and revenue requirement. Mr. Broderick and I, in this rebuttal of Staff Rate Design testimony, are using Version 3 updated to the Company's rebuttal revenue requirement. In addition, if a user of the model decides to exclude an operating district from the model, the total revenue requirement is reduced by the revenue requirement attributed to that district.

Q. WHAT REVENUE REQUIREMENT DOES THE MODEL USE AS A TARGET FOR THE WASTEWATER CONSOLIDATED RATES?

A. The original revenue requirement target in Versions 1, 2 and 3 was the Commission approved revenue requirement from Decision No. 71410, Docket SW-01303A-08-0227 which was the Mohave Wastewater District and the Company's requested revenue requirement in Docket SW-01303A-09-0343 for Sun City, Sun City West, and Anthem/Agua Fria Wastewater Districts. Further modifications of Version 3 of the model adjusted the revenue requirement for these districts for the Staff's requested revenue requirement and the Company's rebuttal revenue requirement. Version 2 was updated by Staff internally to include their proposed non-consolidated rates and proposed revenue requirement. Mr. Broderick and I, in this rebuttal of Staff Rate Design testimony, are using Version 3 updated to the Company's rebuttal revenue requirement. If a user of the model decides to exclude an operating district from the model, the total revenue requirement is reduced by the revenue requirement attributed to that area.

Q. WHAT BILLING DETERMINANTS ARE USED TO DETERMINE THE USAGE AT DIFFERENT RATE BLOCKS FOR THE WATER CONSOLIDATION MODEL?

A. For the operating districts of Agua Fria, Sun City West, Tubac, Mohave, Havasu and Paradise Valley, the billing determinants from Docket W-01303A-08-0227 were used. These were the billing determinants used by Staff to determine the allowable rates for these districts. For Anthem and Sun City, the billing determinants filed in the H Schedules in this case were used. Staff has reviewed these billing determinants and has found them acceptable so far for this purpose.

Q. WHAT BILLING DETERMINANTS ARE USED TO DETERMINE THE USAGE AT DIFFERENT RATE BLOCKS FOR THE WASTEWATER CONSOLIDATION MODEL?

A. For the Mohave District, the billing determinants from Docket SW-01303A-08-0227 were used. These were the billing determinants used by Staff to determine the allowable rates for this district. For Sun City, Sun City West, and Anthem/Agua Fria, the billing determinants filed in the H Schedules in this case were used. Again, Staff is using these billing determinants.

Q. EXPLAIN HOW VERSION 3 CREATES THE STEP RATES.

A. The step rates are based on a percentage of the proposed consolidation rates which will create rates either higher or lower than the proposed consolidation rates. The structure of the Version 3 model is similar to Version 2; however, the user has the option of transitioning from a modified level of the consolidated rate to the full consolidated rates in three steps. Each step has a series of linked Excel files similar to Version 2. In step one, the final consolidated rates including customer charge, consumption blocks and consumption rates are determined. Then, the user can decide the percentage of those consolidated rates that each operating district will charge in step one. For example, the operating districts with current rates higher than the proposed consolidated rates could be

billed at 150% of the final consolidated rates and, conversely, those operating districts currently with lower rates than the proposed consolidated rates could be billed at 80% of the proposed consolidated rates. These percentages move toward 100% through step 2 according to the user's judgment. By step 3, all the operating districts are billed at 100% of the consolidated rates. In each step, the user sets the percentage of consolidated rates ***so that the overall revenue requirement remains at the required level.*** However, the model does not assume a stepped increase for Private Fire and Non-Potable. These classes are brought to the consolidated rate in step 1. For the other classes, the stepped increase is utilized to avoid rate shock for the operating districts with lower rates as compared to other operating districts.

Q. WHY MIGHT THE COMMISSION WANT TO APPROVE A THREE-STEP TRANSITION?

A. The Commission may wish to approve a transition so as to mitigate the one-time change in rates associated with consolidated rates. For example, in an entire state-wide consolidation of Arizona-American water's districts, the rates of Sun City Water, for example, increase significantly. Therefore, a three-step transition breaks those increases into three distinct steps.

Q. HOW MUCH TIME SHOULD SEPARATE EACH STEP?

A. That is for the Commission to decide, but I would recommend one year between each step.

Q. IN DEVISING A VERSION 3 OF THE MODEL USING COMPANY REBUTTAL REVENUE REQUIREMENTS, DID YOU CREATE STEPPED RATES?

A. Yes. The stepped rates are in attached Rebuttal of Staff Exhibit CEH-1 Stepped Water Rates and Rebuttal of Staff Exhibit CEH-2 Stepped Wastewater Rates.

Q. HOW DO THE STEPPED RATES AFFECT RATE PAYERS?

A. The increase or decrease to certain rate payers would be stepped in over three steps in order to mitigate rate shock. The model assumes that each district would immediately bill customers based on uniform consumption blocks, however the customer charges and consumption charges would be transitioned in steps. For example, rate payers in Sun City Water District currently pay a customer charge of $7.99 per month for a 5/8" meter. In the first step, the customer charge would rise to $13.24. Then in the second step the customer charge would be $15.10 and finally in the last step the customer charge would be $16.97, which will then be the same customer charge for all the operating districts. The consumption charge would be stepped-in in a similar manner.

Q. DOES THIS CONCLUDE YOUR REBUTTAL OF STAFF RATE DESIGN TESTIMONY?

A. Yes.

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

		Sun City			SCW			Agua Fria		
		Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates		78%	89%	100%	100%	100%	100%	100%	100%	100%
Residential										
5/8" - 3/4"										
Customer Charge		13.24	15.10	16.97	16.97	16.97	16.97	16.97	16.97	16.97
First	4,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	6,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	25,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	25,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	60,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
1"										
Customer Charge		13.24	15.10	16.97	16.97	16.97	16.97	16.97	16.97	16.97
First	4,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	6,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	25,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	25,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	60,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
1 1/2"										
Customer Charge		66.18	75.52	84.85	84.85	84.85	84.85	84.85	84.85	84.85
First	25,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	75,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	300,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
2"										
Customer Charge		105.89	120.83	135.76	135.76	135.76	135.76	135.76	135.76	135.76
First	50,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	50,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	300,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
3"										
Customer Charge		198.55	226.55	254.55	254.55	254.55	254.55	254.55	254.55	254.55
First	75,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	25,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	300,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
4"										
Customer Charge		330.92	377.58	424.25	424.25	424.25	424.25	424.25	424.25	424.25
First	100,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	100,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	400,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
6"										
Customer Charge		661.83	755.17	848.50	848.50	848.50	848.50	848.50	848.50	848.50
First	100,000	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next	100,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	400,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

		Sun City			SCW			Agua Fria		
		Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates		78%	89%	100%	100%	100%	100%	100%	100%	100%
Commercial, OPA, Turf Rates and Blocks										
5/8" - 3/4"										
Customer Charge		13.24	15.10	16.97	16.97	16.97	16.97	16.97	16.97	16.97
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	10,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	25,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	25,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	60,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
1"										
Customer Charge		33.09	37.76	42.43	42.43	42.43	42.43	42.43	42.43	42.43
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	10,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	25,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	25,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	60,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
1 1/2"										
Customer Charge		66.18	75.52	84.85	84.85	84.85	84.85	84.85	84.85	84.85
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	100,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	300,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
2"										
Customer Charge		105.89	120.83	135.76	135.76	135.76	135.76	135.76	135.76	135.76
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	100,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	300,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
3"										
Customer Charge		198.55	226.55	254.55	254.55	254.55	254.55	254.55	254.55	254.55
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	100,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	300,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
4"										
Customer Charge		330.92	377.58	424.25	424.25	424.25	424.25	424.25	424.25	424.25
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	200,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	400,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900
6"										
Customer Charge		661.83	755.17	848.50	848.50	848.50	848.50	848.50	848.50	848.50
First	-	0.9360	1.0680	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000	1.2000
Next or First	200,000	1.7862	2.0381	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900	2.2900
Next	100,000	2.1762	2.4831	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900	2.7900
Next	100,000	2.5662	2.9281	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900	3.2900
Over	400,000	2.9562	3.3731	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900	3.7900

SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

	Sun City			SCW			Agua Fria		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Non-Potable Rate									
Customer Charge	-	-	-	-	-	-	-	-	-
All Consumption	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000
Private Fire Rate									
2"									
Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3"									
Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
4"									
Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
6"				-	-	-			
Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
8"									
Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00
10"									
Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
12"									
Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants									
Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

		Anthem			Tubac			Mohave		
		Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates		243%	165%	100%	150%	120%	100%	60%	81%	100%
Residential										
5/8" - 3/4"										
Customer Charge		41.24	28.00	16.97	25.46	20.36	16.97	10.18	13.75	16.97
First	4,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	6,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	25,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	25,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	60,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790
1"										
Customer Charge		41.24	28.00	16.97	25.46	20.36	16.97	10.18	13.75	16.97
First	4,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	6,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	25,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	25,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	60,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790
1 1/2"										
Customer Charge		206.19	140.00	84.85	127.28	101.82	84.85	50.91	68.73	84.85
First	25,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	75,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	300,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790
2"										
Customer Charge		329.90	224.00	135.76	203.64	162.91	135.76	81.46	109.97	135.76
First	50,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	50,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	300,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790
3"										
Customer Charge		618.56	420.01	254.55	381.83	305.46	254.55	152.73	206.19	254.55
First	75,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	25,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	300,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790
4"										
Customer Charge		1,030.93	700.01	424.25	636.38	509.10	424.25	254.55	343.64	424.25
First	100,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	100,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	400,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790
6"										
Customer Charge		2,061.86	1,400.03	848.50	1,272.75	1,018.20	848.50	509.10	687.29	848.50
First	100,000	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.720	0.972	1.200
Next	100,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.374	1.855	2.290
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.674	2.260	2.790
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.974	2.665	3.290
Over	400,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.274	3.070	3.790

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

		Anthem			Tubac			Mohave		
		Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates		243%	165%	100%	150%	120%	100%	60%	81%	100%
Commercial, OPA, Turf Rates and Blocks										
5/8" - 3/4"										
Customer Charge		41.24	28.00	16.97	25.46	20.36	16.97	10.18	13.75	16.97
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	10,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	25,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	25,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	60,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900
1"										
Customer Charge		103.09	70.00	42.43	63.64	50.91	42.43	25.46	34.36	42.43
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	10,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	25,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	25,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	60,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900
1 1/2"										
Customer Charge		206.19	140.00	84.85	127.28	101.82	84.85	50.91	68.73	84.85
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	100,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	300,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900
2"										
Customer Charge		329.90	224.00	135.76	203.64	162.91	135.76	81.46	109.97	135.76
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	100,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	300,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900
3"										
Customer Charge		618.56	420.01	254.55	381.83	305.46	254.55	152.73	206.19	254.55
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	100,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	300,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900
4"										
Customer Charge		1,030.93	700.01	424.25	636.38	509.10	424.25	254.55	343.64	424.25
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	200,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	400,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900
6"										
Customer Charge		2,061.86	1,400.03	848.50	1,272.75	1,018.20	848.50	509.10	687.29	848.50
First	-	2.9160	1.9800	1.2000	1.8000	1.4400	1.2000	0.7200	0.9720	1.2000
Next or First	200,000	5.5647	3.7785	2.2900	3.4350	2.7480	2.2900	1.3740	1.8549	2.2900
Next	100,000	6.7797	4.6035	2.7900	4.1850	3.3480	2.7900	1.6740	2.2599	2.7900
Next	100,000	7.9947	5.4285	3.2900	4.9350	3.9480	3.2900	1.9740	2.6649	3.2900
Over	400,000	9.2097	6.2535	3.7900	5.6850	4.5480	3.7900	2.2740	3.0699	3.7900

SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

	Anthem			Tubac			Mohave		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Non-Potable Rate									
Customer Charge	-	-	-	-	-	-	-	-	-
All Consumption	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.500	2.500	2.500
Private Fire Rate									
2"									
Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3"									
Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
4"									
Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
6"									
Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
8"									
Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00
10"									
Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
12"									
Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants									
Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

		Havasu			Paradise Valley		
		Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates		120%	111%	100%	95%	100%	100%
Residential							
5/8" - 3/4"							
Customer Charge		20.36	18.84	16.97	16.12	16.97	16.97
First	4,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	6,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	25,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	25,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	60,000	4.548	4.207	3.790	3.601	3.790	3.790
1"							
Customer Charge		20.36	18.84	16.97	16.12	16.97	16.97
First	4,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	6,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	25,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	25,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	60,000	4.548	4.207	3.790	3.601	3.790	3.790
1 1/2"							
Customer Charge		101.82	94.18	84.85	80.61	84.85	84.85
First	25,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	75,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	100,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	100,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	300,000	4.548	4.207	3.790	3.601	3.790	3.790
2"							
Customer Charge		162.91	150.69	135.76	128.97	135.76	135.76
First	50,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	50,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	100,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	100,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	300,000	4.548	4.207	3.790	3.601	3.790	3.790
3"							
Customer Charge		305.46	282.55	254.55	241.82	254.55	254.55
First	75,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	25,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	100,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	100,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	300,000	4.548	4.207	3.790	3.601	3.790	3.790
4"							
Customer Charge		509.10	470.92	424.25	403.04	424.25	424.25
First	100,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	100,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	100,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	100,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	400,000	4.548	4.207	3.790	3.601	3.790	3.790
6"							
Customer Charge		1,018.20	941.84	848.50	806.08	848.50	848.50
First	100,000	1.440	1.332	1.200	1.140	1.200	1.200
Next	100,000	2.748	2.542	2.290	2.176	2.290	2.290
Next	100,000	3.348	3.097	2.790	2.651	2.790	2.790
Next	100,000	3.948	3.652	3.290	3.126	3.290	3.290
Over	400,000	4.548	4.207	3.790	3.601	3.790	3.790

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

		Havasu			Paradise Valley		
		Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates		120%	111%	100%	95%	100%	100%
Commercial, OPA, Turf Rates and Blocks							
5/8" - 3/4"							
Customer Charge		20.36	18.84	16.97	16.12	16.97	16.97
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	10,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	25,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	25,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	60,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900
1"							
Customer Charge		50.91	47.09	42.43	40.30	42.43	42.43
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	10,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	25,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	25,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	60,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900
1 1/2"							
Customer Charge		101.82	94.18	84.85	80.61	84.85	84.85
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	100,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	100,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	100,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	300,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900
2"							
Customer Charge		162.91	150.69	135.76	128.97	135.76	135.76
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	100,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	100,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	100,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	300,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900
3"							
Customer Charge		305.46	282.55	254.55	241.82	254.55	254.55
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	100,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	100,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	100,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	300,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900
4"							
Customer Charge		509.10	470.92	424.25	403.04	424.25	424.25
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	200,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	100,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	100,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	400,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900
6"							
Customer Charge		1,018.20	941.84	848.50	806.08	848.50	848.50
First	-	1.4400	1.3320	1.2000	1.1400	1.2000	1.2000
Next or First	200,000	2.7480	2.5419	2.2900	2.1755	2.2900	2.2900
Next	100,000	3.3480	3.0969	2.7900	2.6505	2.7900	2.7900
Next	100,000	3.9480	3.6519	3.2900	3.1255	3.2900	3.2900
Over	400,000	4.5480	4.2069	3.7900	3.6005	3.7900	3.7900

SUMMARY OF CONSOLIDATION RATES - WATER

STEP 1, STEP 2 AND STEP 3

	Havasu			Paradise Valley		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Non-Potable Rate						
Customer Charge	-	-	-	-	-	-
All Consumption	2.500	2.500	2.500	2.500	2.500	2.500
Private Fire Rate						
2"						
Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00
3"						
Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50
4"						
Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00
6"						
Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00
8"						
Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00
10"						
Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00
12"						
Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants						
Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WASTEWATER

STEP 1, STEP 2 AND STEP 3

	Sun City			SCW			Agua Fria/Anthem			Mohave		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Percentage of Consolidated Rates	68%	89%	100%	100%	100%	100%	175%	126%	100%	115%	102%	100%
Residential												
Customer Charge - Fixed Rate												
5/8" - 3/4"	23.28	30.47	34.24	34.24	34.24	34.24	59.92	43.14	34.24	39.38	34.92	34.24
1"	23.28	30.47	34.24	34.24	34.24	34.24	59.92	43.14	34.24			
1 1/2"	108.80	142.40	160.00									
2"	170.00	222.50	250.00	250.00	250.00	250.00						
Commercial												
Customer Charge												
5/8" - 3/4"	23.28	30.47	34.24	34.24	34.24	34.24	59.92	43.14	34.24			
1"	54.40	71.20	80.00	80.00	80.00	80.00	140.00	100.80	80.00			
1 1/2"	108.80	142.40	160.00	160.00	160.00	160.00						
2"	170.00	222.50	250.00	250.00	250.00	250.00						
>2"	170.00	222.50	250.00	250.00	250.00	250.00	437.50	315.00	250.00	287.50	255.00	250.00
Fixed Rate	51.00	66.75	75.00	75.00	75.00	75.00				86.25	76.50	75.00
Consumption Charge	1.292	1.691	1.900	1.900	1.900	1.900	3.325	2.394	1.900	2.185	1.938	1.900
WC	11.87	11.87	11.87	11.87	11.87	11.87						
WM	22.20	22.20	22.20	22.20	22.20	22.20						
DW				95.20	95.20	95.20						
WR				46.53	46.53	95.20						

Exhibit CEH-2

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA -AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT, AND SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM / AGUA FRIA WASTEWATER DISTRICT, SUN CITY WASTEWATER DISTRICT, AND SUN CITY WEST WASTEWATER DISTRICT	DOCKET NO. SW-01303A-09-0343

REBUTTAL TESTIMONY
OF
CONSTANCE E. HEPPENSTALL
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
MAY 14, 2010

EXHIBIT
A-42
ADMITTED

REBUTTAL TESTIMONY
OF
CONSTANCE E. HEPPENSTALL
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
MAY 14, 2010

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Rebuttal Exhibit CEH-1 Stepped Water Rates, Version 4
Rebuttal Exhibit CEH-2 Stepped Wastewater Rates, Version 4

EXECUTIVE SUMMARY

Ms. Heppenstall testifies as follows:

Ms. Heppenstall explains Version 4 of the rate consolidation model prepared for each of the operating districts for both water and wastewater for Arizona-American Water Company (Company) and corrects certain present rate assumptions.

Ms. Heppenstall sponsors the Rate Consolidation Model, Version 4.

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS

A. My name is Constance E. Heppenstall. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

Q. ARE YOU THE SAME CONSTANCE E. HEPPENSTALL THAT SUBMITTED REBUTTAL TESTIMONY ON REVENUE REQUIREMENT ON APRIL 7, 2010?

A. Yes.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Please refer to the Executive Summary, which precedes my testimony.

III. WATER AND WASTEWATER RATE CONSOLIDATION MODEL VERSION 4

Q. WHY DID YOU DEVELOP A VERSION 4 OF THE WATER AND WASTEWATER RATE CONSOLIDATION MODEL?

A. I developed a Version 4 of the model in response to the Testimony of Dan Neidlinger filed on behalf of the Anthem Community Council and data requests from the Anthem Community Council, which requested a five-step version of the model.

Q. WHAT IS DIFFERNCE BETWEEN VERSION 3 AND VERSION 4 OF THE WATER AND WASTEWATER RATE CONSOLIDATION MODELS?

A. Version 4 adds two steps to the rate consolidation models so that the consolidated rates are transitioned in over five steps instead of the three steps used in Version 3. In addition, Version 4 varies the percentage of consolidated rates by district so that each district has an equivalent dollar increase in each step.

Q. DOES VERSION 4 ALSO CORRECT SOME MINOR ERRORS IN PRESENT RATES THAT WERE IN PRIOR VERSIONS?

A. Yes, Version 4 corrects some minor errors in present rates in the Havasu, Mohave and Paradise Valley districts and corrected the reference to rate AZM1D that should have been A7M1D in the Sun City District..

Q. WHAT IS THE EFFECT OF THE CORRECTIONS TO PRESENT RATES?

A. The overall effect of the correction in present rates is a minor decrease of present rate revenue of $7,682.

Q. DID YOU CREATE STEPPED RATES IN DEVELOPING A VERSION 4 OF THE MODEL USING COMPANY REBUTTAL REVENUE REQUIREMENTS?

A. Yes. The stepped rates are in attached Rebuttal Exhibit CEH-1 Stepped Water Rates v4 and Rebuttal Exhibit CEH-2 Stepped Wastewater Rates v4.

Q. DOES THIS CONCLUDE YOUR REBUTTAL OF INTERVENOR RATE DESIGN TESTIMONY?

A. Yes.

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Sun City					SCW				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		73%	80%	87%	93%	100%	112%	109%	106%	103%	100%
Residential											
5/8" - 3/4"											
Customer Charge		12.46	13.59	14.72	15.84	16.97	18.96	18.46	17.96	17.47	16.97
First	4,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	6,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	25,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	25,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	60,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900
1"											
Customer Charge		12.46	13.59	14.72	15.84	16.97	18.96	18.46	17.96	17.47	16.97
First	4,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	6,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	25,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	25,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	60,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900
1 1/2"											
Customer Charge		62.32	67.95	73.59	79.22	84.85	94.79	92.31	89.82	87.34	84.85
First	25,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	75,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	300,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900
2"											
Customer Charge		99.72	108.73	117.74	126.75	135.76	151.67	147.69	143.72	139.74	135.76
First	50,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	50,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	300,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900
3"											
Customer Charge		186.97	203.86	220.76	237.65	254.55	284.38	276.92	269.47	262.01	254.55
First	75,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	25,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	300,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900
4"											
Customer Charge		311.61	339.77	367.93	396.09	424.25	473.97	461.54	449.11	436.68	424.25
First	100,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	100,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	400,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900
6"											
Customer Charge		623.22	679.54	735.86	792.18	848.50	947.94	923.08	898.22	873.36	848.50
First	100,000	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3055	1.2703	1.2352	1.2000
Next	100,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.4913	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.0352	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.5792	3.4828	3.3864	3.2900
Over	400,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.1231	4.0121	3.9010	3.7900

SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

	Sun City					SCW				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates	73%	80%	87%	93%	100%	112%	109%	106%	103%	100%
Non-Potable Rate										
Percentage of Consolidated Rates	73%	80%	87%	93%	100%	112%	109%	106%	103%	100%
Customer Charge	-	-	-	-		-	-	-	-	-
All Consumption	1.8363	2.0022	2.1681	2.3341	2.500	2.7930	2.7198	2.6465	2.5733	2.5000
Private Fire Rate										
2" Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3" Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
4" Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
6" Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
8" Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00
10" Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
12" Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Agua Fria					Anthem				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		105%	104%	103%	101%	100%	208%	181%	154%	127%	100%
Residential											
5/8" - 3/4"											
Customer Charge		17.86	17.64	17.42	17.19	16.97	35.31	30.73	26.14	$ 21.56	16.97
First	4,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	6,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	25,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	25,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	60,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
1"											
Customer Charge		17.86	17.64	17.42	17.19	16.97	35.31	30.73	26.14	$ 21.56	16.97
First	4,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	6,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	25,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	25,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	60,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
1 1/2"											
Customer Charge		89.30	88.19	87.08	85.96	84.85	176.57	153.64	130.71	$ 107.78	84.85
First	25,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	75,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	300,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
2"											
Customer Charge		142.89	141.11	139.32	137.54	135.76	282.52	245.83	209.14	$ 172.45	135.76
First	50,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	50,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	300,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
3"											
Customer Charge		267.91	264.57	261.23	257.89	254.55	529.72	460.93	392.13	$ 323.34	254.55
First	75,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	25,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	300,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
4"											
Customer Charge		446.52	440.95	435.39	429.82	424.25	882.86	768.21	653.56	$ 538.90	424.25
First	100,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	100,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	400,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
6"											
Customer Charge		893.05	881.91	870.77	859.64	848.50	1,765.73	1,536.42	1,307.11	$1,077.81	848.50
First	100,000	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next	100,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	400,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900

SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

	Agua Fria					Anthem				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates	105%	104%	103%	101%	100%	208%	181%	154%	127%	100%
Non-Potable Rate										
Percentage of Consolidated Rates	105%	104%	103%	101%	100%	100%	100%	100%	100%	100%
Customer Charge	-	-	-			-	-	-		
All Consumption	2.6313	2.5984	2.5656	2.5328	2.5000	2.5000	2.5000	2.5000	$ 2.500	$ 2.500
Private Fire Rate										
2" Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3" Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
4" Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
6" Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
8" Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00
10" Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
12" Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Tubac					Mohave				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		151%	138%	126%	113%	100%	64%	73%	82%	91%	100%
Residential											
5/8" - 3/4"											
Customer Charge		25.64	23.47	21.31	19.14	16.97	10.80	12.34	13.89	15.43	16.97
First	4,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	6,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	25,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	25,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	60,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790
1"											
Customer Charge		25.64	23.47	21.31	19.14	16.97	10.80	12.34	13.89	15.43	16.97
First	4,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	6,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	25,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	25,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	60,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790
1 1/2"											
Customer Charge		128.21	117.37	106.53	95.69	84.85	54.01	61.72	69.43	77.14	84.85
First	25,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	75,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	300,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790
2"											
Customer Charge		205.13	187.79	170.45	153.10	135.76	86.41	98.75	111.09	123.42	135.76
First	50,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	50,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	300,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790
3"											
Customer Charge		384.63	352.11	319.59	287.07	254.55	162.02	185.15	208.29	231.42	254.55
First	75,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	25,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	300,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790
4"											
Customer Charge		641.04	586.84	532.65	478.45	424.25	270.04	308.59	347.14	385.70	424.25
First	100,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	100,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	400,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790
6"											
Customer Charge		1,282.08	1,173.69	1,065.29	956.90	848.50	540.07	617.18	694.29	771.39	848.50
First	100,000	1.8132	1.6599	1.5066	1.3533	1.2000	0.764	0.873	0.982	1.091	1.200
Next	100,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.458	1.666	1.874	2.082	2.290
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.776	2.029	2.283	2.536	2.790
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.094	2.393	2.692	2.991	3.290
Over	400,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.412	2.757	3.101	3.446	3.790

SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

	Tubac					Mohave				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates	151%	138%	126%	113%	100%	64%	73%	82%	91%	100%
Non-Potable Rate										
Percentage of Consolidated Rates										
Customer Charge										
All Consumption										
Private Fire Rate										
2"										
Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3"										
Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
4"										
Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
6"										
Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
8"										
Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00
10"										
Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
12"										
Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants										
Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Havasu					Paradise Valley				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		127%	120%	113%	107%	100%	92%	94%	96%	98%	100%
Residential											
5/8" - 3/4"											
Customer Charge		21.50	20.37	19.24	18.10	16.97	15.68	16.00	16.32	16.65	16.97
First	4,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	6,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	25,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	25,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	60,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790
1"											
Customer Charge		21.50	20.37	19.24	18.10	16.97	15.68	16.00	16.32	16.65	16.97
First	4,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	6,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	25,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	25,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	60,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790
1 1/2"											
Customer Charge		107.50	101.84	96.18	90.51	84.85	78.38	79.99	81.61	83.23	84.85
First	25,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	75,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	100,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	100,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	300,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790
2"											
Customer Charge		172.01	162.95	153.88	144.82	135.76	125.40	127.99	130.58	133.17	135.76
First	50,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	50,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	100,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	100,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	300,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790
3"											
Customer Charge		322.51	305.52	288.53	271.54	254.55	235.13	239.98	244.84	249.69	254.55
First	75,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	25,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	100,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	100,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	300,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790
4"											
Customer Charge		537.52	509.21	480.89	452.57	424.25	391.88	399.97	408.06	416.16	424.25
First	100,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	100,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	100,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	100,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	400,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790
6"											
Customer Charge		1,075.05	1,018.41	961.77	905.14	848.50	783.76	799.94	816.13	832.31	848.50
First	100,000	1.520	1.440	1.360	1.280	1.200	1.108	1.131	1.154	1.177	1.200
Next	100,000	2.901	2.749	2.596	2.443	2.290	2.115	2.159	2.203	2.246	2.290
Next	100,000	3.535	3.349	3.162	2.976	2.790	2.577	2.630	2.684	2.737	2.790
Next	100,000	4.168	3.949	3.729	3.510	3.290	3.039	3.102	3.164	3.227	3.290
Over	400,000	4.802	4.549	4.296	4.043	3.790	3.501	3.573	3.645	3.718	3.790

SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

	Havasu					Paradise Valley				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates	127%	120%	113%	107%	100%	92%	94%	96%	98%	100%
Non-Potable Rate										
Percentage of Consolidated Rates										
Customer Charge										
All Consumption										
Private Fire Rate										
2"										
Customer Charge	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
3"										
Customer Charge	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50	22.50
4"										
Customer Charge	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
6"										
Customer Charge	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
8"										
Customer Charge	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00	160.00
10"										
Customer Charge	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
12"										
Customer Charge	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hydrants										
Customer Charge	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Sun City					SCW				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		73%	80%	87%	93%	100%	112%	112%	106%	103%	100%
Commercial, OPA, Turf Rates and Blocks											
5/8" - 3/4"											
Customer Charge		12.46	13.59	14.72	15.84	16.97	18.96	18.96	17.96	17.47	16.97
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	10,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	25,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	25,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	60,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900
1"											
Customer Charge		31.16	33.98	36.79	39.61	42.43	47.40	47.40	44.91	43.67	42.43
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	10,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	25,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	25,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	60,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900
1 1/2"											
Customer Charge		62.32	67.95	73.59	79.22	84.85	94.79	94.79	89.82	87.34	84.85
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	100,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	300,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900
2"											
Customer Charge		99.72	108.73	117.74	126.75	135.76	151.67	151.67	143.72	139.74	135.76
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	100,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	300,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900
3"											
Customer Charge		186.97	203.86	220.76	237.65	254.55	284.38	284.38	269.47	262.01	254.55
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	100,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	300,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900
4"											
Customer Charge		311.61	339.77	367.93	396.09	424.25	473.97	473.97	449.11	436.68	424.25
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	200,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	400,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900
6"											
Customer Charge		623.22	679.54	735.86	792.18	848.50	947.94	947.94	898.22	873.36	848.50
First	-	0.8814	0.9611	1.0407	1.1204	1.2000	1.3406	1.3406	1.2703	1.2352	1.2000
Next or First	200,000	1.6820	1.8340	1.9860	2.1380	2.2900	2.5584	2.5584	2.4242	2.3571	2.2900
Next	100,000	2.0493	2.2344	2.4196	2.6048	2.7900	3.1170	3.1170	2.9535	2.8717	2.7900
Next	100,000	2.4165	2.6349	2.8533	3.0716	3.2900	3.6756	3.6756	3.4828	3.3864	3.2900
Over	400,000	2.7838	3.0353	3.2869	3.5384	3.7900	4.2342	4.2342	4.0121	3.9010	3.7900

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Agua Fria					Anthem				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		105%	104%	103%	101%	100%	208%	181%	154%	127%	100%
Commercial, OPA, Turf Rates and Blocks											
5/8" - 3/4"											
Customer Charge		17.86	17.64	17.42	17.19	16.97	35.31	30.73	26.14	21.56	16.97
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	10,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	25,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	25,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	60,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
1"											
Customer Charge		44.65	44.10	43.54	42.98	42.43	88.29	76.82	65.36	53.89	42.43
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	10,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	25,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	25,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	60,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
1 1/2"											
Customer Charge		89.30	88.19	87.08	85.96	84.85	176.57	153.64	130.71	107.78	84.85
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	100,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	300,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
2"											
Customer Charge		142.89	141.11	139.32	137.54	135.76	282.52	245.83	209.14	172.45	135.76
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	100,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	300,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
3"											
Customer Charge		267.91	264.57	261.23	257.89	254.55	529.72	460.93	392.13	323.34	254.55
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	100,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	300,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
4"											
Customer Charge		446.52	440.95	435.39	429.82	424.25	882.86	768.21	653.56	538.90	424.25
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	200,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	400,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900
6"											
Customer Charge		893.05	881.91	870.77	859.64	848.50	1,765.73	1,536.42	1,307.11	1,077.81	848.50
First	-	1.2630	1.2473	1.2315	1.2158	1.2000	2.4972	2.1729	1.8486	1.5243	1.2000
Next or First	200,000	2.4102	2.3802	2.3501	2.3201	2.2900	4.7655	4.1466	3.5277	2.9089	2.2900
Next	100,000	2.9365	2.8999	2.8632	2.8266	2.7900	5.8060	5.0520	4.2980	3.5440	2.7900
Next	100,000	3.4627	3.4195	3.3764	3.3332	3.2900	6.8465	5.9574	5.0682	4.1791	3.2900
Over	400,000	3.9890	3.9392	3.8895	3.8397	3.7900	7.8870	6.8627	5.8385	4.8142	3.7900

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Tubac					Mohave				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		151%	138%	126%	113%	100%	64%	73%	82%	91%	100%
Commercial, OPA, Turf Rates and Blocks											
5/8" - 3/4"											
Customer Charge		25.64	23.47	21.31	19.14	16.97	10.80	12.34	13.89	15.43	$ 16.97
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	10,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	25,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	25,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	60,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900
1"											
Customer Charge		64.10	58.68	53.26	47.84	42.43	27.00	30.86	34.71	38.57	$ 42.43
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	10,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	25,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	25,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	60,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900
1 1/2"											
Customer Charge		128.21	117.37	106.53	95.69	84.85	54.01	61.72	69.43	77.14	$ 84.85
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	100,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	300,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900
2"											
Customer Charge		205.13	187.79	170.45	153.10	135.76	86.41	98.75	111.09	123.42	$ 135.76
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	100,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	300,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900
3"											
Customer Charge		384.63	352.11	319.59	287.07	254.55	162.02	185.15	208.29	231.42	$ 254.55
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	100,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	300,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900
4"											
Customer Charge		641.04	586.84	532.65	478.45	424.25	270.04	308.59	347.14	385.70	$ 424.25
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	200,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	400,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900
6"											
Customer Charge		1,282.08	1,173.69	1,065.29	956.90	848.50	540.07	617.18	694.29	771.39	$ 848.50
First	-	1.8132	1.6599	1.5066	1.3533	1.2000	0.7638	0.8729	0.9819	1.0910	1.2000
Next or First	200,000	3.4602	3.1676	2.8751	2.5825	2.2900	1.4576	1.6657	1.8738	2.0819	2.2900
Next	100,000	4.2157	3.8593	3.5028	3.1464	2.7900	1.7758	2.0294	2.2829	2.5365	2.7900
Next	100,000	4.9712	4.5509	4.1306	3.7103	3.2900	2.0941	2.3931	2.6920	2.9910	3.2900
Over	400,000	5.7267	5.2425	4.7583	4.2742	3.7900	2.4123	2.7568	3.1012	3.4456	3.7900

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

		Havasu					Paradise Valley				
		Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates		127%	120%	113%	107%	100%	92%	94%	96%	98%	100%
Commercial, OPA, Turf Rates and Blocks											
5/8" - 3/4"											
Customer Charge		21.50	20.37	19.24	18.10	16.97	15.68	16.00	16.32	16.65	16.97
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	10,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	25,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	25,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	60,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900
1"											
Customer Charge		53.75	50.92	48.09	45.26	42.43	39.19	40.00	40.81	41.62	42.43
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	10,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	25,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	25,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	60,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900
1 1/2"											
Customer Charge		107.50	101.84	96.18	90.51	84.85	78.38	79.99	81.61	83.23	84.85
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	100,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	100,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	100,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	300,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900
2"											
Customer Charge		172.01	162.95	153.88	144.82	135.76	125.40	127.99	130.58	133.17	135.76
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	100,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	100,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	100,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	300,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900
3"											
Customer Charge		322.51	305.52	288.53	271.54	254.55	235.13	239.98	244.84	249.69	254.55
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	100,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	100,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	100,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	300,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900
4"											
Customer Charge		537.52	509.21	480.89	452.57	424.25	391.88	399.97	408.06	416.16	424.25
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	200,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	100,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	100,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	400,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900
6"											
Customer Charge		1,075.05	1,018.41	961.77	905.14	848.50	783.76	799.94	816.13	832.31	848.50
First	-	1.5204	1.4403	1.3602	1.2801	1.2000	1.1084	1.1313	1.1542	1.1771	1.2000
Next or First	200,000	2.9014	2.7486	2.5957	2.4429	2.2900	2.1153	2.1590	2.2026	2.2463	2.2900
Next	100,000	3.5349	3.3487	3.1625	2.9762	2.7900	2.5771	2.6303	2.6836	2.7368	2.7900
Next	100,000	4.1684	3.9488	3.7292	3.5096	3.2900	3.0390	3.1017	3.1645	3.2272	3.2900
Over	400,000	4.8019	4.5489	4.2960	4.0430	3.7900	3.5008	3.5731	3.6454	3.7177	3.7900

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WASTEWATER
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

	Sun City					SCW				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates	63%	72%	82%	91%	100%	93%	95%	97%	98%	100%
Residential										
Customer Charge - Fixed Rate										
5/8" - 3/4"	21.59	24.75	27.91	31.08	34.24	31.88	32.47	33.06	33.65	34.24
1"	21.59	24.75	27.91	31.08	34.24	31.88	32.47	33.06	33.65	34.24
1 1/2"	100.88	115.66	130.44	145.22	160.00					
2"	157.63	180.72	203.81	226.91	250.00	232.75	237.06	241.38	245.69	250.00
Commercial										
Customer Charge										
5/8" - 3/4"	21.59	24.75	27.91	31.08	34.24	31.88	32.47	33.06	33.65	34.24
1"	50.44	57.83	65.22	72.61	80.00	74.48	75.86	77.24	78.62	80.00
1 1/2"	100.88	115.66	130.44	145.22	160.00	148.96	151.72	154.48	157.24	160.00
2"	157.63	180.72	203.81	226.91	250.00	232.75	237.06	241.38	245.69	250.00
>2"	157.63	180.72	203.81	226.91	250.00	232.75	237.06	241.38	245.69	250.00
Fixed Rate	47.29	54.22	61.14	68.07	75.00	69.83	71.12	72.41	73.71	75.00
Consumption Charge	1.198	1.373	1.549	1.724	1.900	1.769	1.802	1.834	1.867	1.900
WC	11.87	11.87	11.87	11.87	11.87	11.87	11.87	11.87	11.87	11.87
WM	22.20	22.20	22.20	22.20	22.20	22.20	22.20	22.20	22.20	22.20
DW						95.20	95.20	95.20	95.20	95.20
WR						46.53	46.53	46.53	46.53	46.53

Rebuttal Exhibit
CEH-2
Stepped Wastewater Rates

ARIZONA AMERICAN WATER COMPANY
SUMMARY OF CONSOLIDATION RATES - WASTEWATE
VERSION 4
STEP 1, STEP 2, STEP 3, STEP 4 AND STEP 5

	Agua Fria/Anthem					Mohave				
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 1	Step 2	Step 3	Step 4	Step 5
Percentage of Consolidated Rates	193%	170%	146%	98%	100%	147%	135%	123%	112%	100%
Residential										
Customer Charge - Fixed Rate										
5/8" - 3/4"	66.05	58.10	50.15	42.19	34.24	50.26	46.26	42.25	38.25	34.24
1"	66.05	58.10	50.15	42.19	34.24					
1 1/2"										
2"										
Commercial										
Customer Charge										
5/8" - 3/4"	66.05	58.10	50.15	42.19	34.24					
1"	154.33	135.75	117.16	98.58	80.00					
1 1/2"										
2"										
>2"	482.28	424.21	366.14	308.07	250.00	367.00	337.75	308.50	279.25	250.00
Fixed Rate						110.10	101.33	92.55	83.78	75.00
Consumption Charge	3.665	3.224	2.783	2.341	1.900	2.7892	2.5669	2.345	2.122	1.900

WC
WM
DW
WR

Rebuttal Exhibit
CEH-2
Stepped Wastewater Rates

EXHIBIT
A-49
ADMITTED

·Jeffrey W Stuck/AZAWC/AWWSC
10/08/2009 11:45 AM

To phil.dyer(
cc
bcc Troy.Day
Subject Anthem fire hydrant maintenance

Phil, Jessica Marlow of the Anthem Community Council Utility Committee recently contacted Paul Townsley with Arizona American Water regarding fire hydrant maintenance activities in the Anthem service area. I responded to this message and included a copy to you.

Would you be available to meet and discuss an agreement between Arizona American Water and Daisy Mountain Fire regarding fire hydrant maintenance. I can show you the work we have performed this year as well as review the procedure we use to inspect, maintain, and repair fire hydrants in Anthem on an ongoing basis. I'd be interested to get your input on our program and perhaps make adjustments you may feel would improve it. I'd also be interested to find out if Daisy Mountain Fire would like to flow test hydrants in the Anthem service area in a cooperative fashion. Please let me know if you'd be interested in meeting to discuss these items.

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

Jeffrey W Stuck/AZAWC/AWWSC
10/21/2009 10:11 AM

To phil.dyer@
cc
bcc Troy.Day@
Subject Anthem fire hydrant maintenance

Phil, I sent an email on October 8th inquiring if it would be possible to meet and discuss the hydrant maintenance program Arizona American Water implements in the Anthem service area and to also explore the possibility to cooperatively flow test the hydrants in the service area. I can be reached at the numbers listed below or by email if you would be interested in this effort. If your not the correct person within Daisy Mountain Fire to coordinate with could you provide me with the name and contact of who I should reach out to? Thanks and look forward to hearing from you.

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

·Jeffrey W Stuck/AZAWC/AWWSC
10/28/2009 01:51 PM

To phil.dyer@
cc
bcc
Subject Anthem Hydrant testing

Phil, nice to speak with you on Monday. I was hoping to set up a meeting to where we could bring a map of our hydrant locations as well has flow and pressure data for the hydrants from our hydraulic model of the distribution system. I could go over our hydrant maintenance practice and see if you have any suggestions for improvements and we could identify actual flow tests that can be performed.

Could you let me know when you might be available to meet in the next few weeks and I'll work to schedule it. If you'd prefer to discuss over the phone my contact information is listed below.

Thanks, we look forward to working with your organization on this important program.

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@
org
10/30/2009 08:57 AM

To Jeffrey.Stuck
cc
bcc
Subject RE: Anthem Hydrant testing

History: This message has been forwarded.

Jeff,
Lets try the 3rd or the 4th. If your in the Sun City office we can meet in the middle,you call it.
Thanks.
Phil

----Original Message----
From: Jeffrey.Stuck@
Sent: Wednesday, October 28, 2009 1:51pm
To: phil.dyer@
Subject: Anthem Hydrant testing

Phil, nice to speak with you on Monday. I was hoping to set up a meeting to where we could bring a map of our hydrant locations as well has flow and pressure data for the hydrants from our hydraulic model of the distribution system. I could go over our hydrant maintenance practice and see if you have any suggestions for improvements and we could identify actual flow tests that can be performed.

Could you let me know when you might be available to meet in the next few weeks and I'll work to schedule it. If you'd prefer to discuss over the phone my contact information is listed below.

Thanks, we look forward to working with your organization on this important program.

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

Jeffrey W
Stuck/AZAWC/AWWSC

11/19/2009 11:58 AM

To Fire.marshal@
phil.dyer@
cc Michael.Helton(
Candace.Coleman(
bcc Troy.Day(

Subject Anthem Fire Hydrant meeting

Phil, thanks again for taking the opportunity to meet with us and discuss our fire hydrant maintenance program and how we might partner with Daisy Mountain Fire in the future. Below is my summary of the discussion and points of agreement we were able to reach.

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Jeff

Jeffrey Stuck

Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@(
org
11/23/2009 10:58 AM

To Jeffrey.Stuck@
cc
bcc
Subject RE: Anthem Fire Hydrant meeting

Jeff,
I will be in a board meeting to night covering our meeting, ideas, and a potential agreement/ MOU with AAW & DMFD. I will forward any information, questions, comments, ideas, form the board to you tomorrow morning,11/24/09.
Daisy Mountain Fire and Arizona American Water working together will have a positive impact in the community we serve.
Phillip Dyer
Captain, Paramedic
Fire Prevention
Daisy Mountain Fire

-----Original Message-----
From: Jeffrey.Stuck@
Sent: Thursday, November 19, 2009 11:58am
To: Fire.marshal@ , phil.dyer@(
Cc: Michael.Helton@ Candace.Coleman@
Subject: Anthem Fire Hydrant meeting

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Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@

11/25/2009 12:25 PM

To Jeffrey.Stuck@

cc "Jessica Marlow" < "DAVID MAXWELL" <

bcc

Subject RE: Anthem Fire Hydrant meeting

History: This message has been replied to.

Jeff,
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Have a great Thanksgiving.
Phil

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Jeffrey W Stuck/AZAWC/AWWSC
11/30/2009 04:05 PM

To phil.dyer@
cc
bcc
Subject RE: Anthem Fire Hydrant meeting

Thanks Phil, I just got back in town after a week off. Look forward to hearing the outcome of your discussion with the board.

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@

phil.dyer@daisymountainfire.org
11/25/2009 12:25 PM

To Jeffrey.Stuck@
cc "Jessica Marlow" , "DAVID MAXWELL"
Subject RE: Anthem Fire Hydrant meeting

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Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

·Jeffrey W Stuck/AZAWC/AWWSC
12/07/2009 01:52 PM

To phil.dyer@
cc
bcc
Subject RE: Anthem Fire Hydrant meeting

Phil, thought I'd check and see if there was any update you could provide.

Also, we are ordering at least on pallet of bottled water to donate to Daisy Mountain Fire. Where should we have that shipped? Thanks

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@c

phil.dyer@
org
11/25/2009 12:25 PM

To Jeffrey.Stuck@
cc "Jessica Marlow" "DAVID MAXWELL" ·
Subject RE: Anthem Fire Hydrant meeting

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Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.

Jeffrey W Stuck/AZAWC/AWWSC
01/07/2010 01:31 PM

To phil.dyer@
cc
bcc
Subject RE: Anthem Fire Hydrant meeting

Phil, I have a pallet of bottled water we'd like to donate for your use during emergencies. Who should I contact in your organization to make arrangements to get it to your storage yard? Thanks

Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@

phil.dyer@c e. org
11/25/2009 12:25 PM

To Jeffrey.Stuck@
cc "Jessica Marlow" < , "DAVID MAXWELL" <dave.maxwell(
Subject RE: Anthem Fire Hydrant meeting

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Jeff

Jeffrey Stuck
Director of Operations - Eastern Division
Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@
org
02/08/2010 11:44 AM

To Jeffrey.Stuck@
danny.johnson@
dave.maxwell@
cc
bcc
Subject RE: Anthem Fire Hydrant meeting

History: This message has been forwarded.

Jeff,
Sorry its taken so long to get back to you. We (DMFD) are working on a MOU we can use to start our hydrant program, seems all of our board members have questions and concerns. As for the pallet of water please contact Logistics Chief Danny Johnson at
Thanks.
Phil Dyer

-----Original Message-----
From: Jeffrey.Stuck@
Sent: Thursday, January 7, 2010 1:31pm
To: phil.dyer@
Subject: RE: Anthem Fire Hydrant meeting

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Director of Operations - Eastern Division
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15626 Del Webb Blvd.
Sun City, AZ 85351

phil.dyer@
11/25/2009 12:25 PM
To
Jeffrey.Stuck@
cc
"Jessica Marlow"
, "DAVID MAXWELL"
<dave.maxwell@
>
Subject
RE: Anthem Fire Hydrant meeting

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Arizona American Water
15626 Del Webb Blvd.
Sun City, AZ 85351

EXHIBIT
A-45
ADMITTED

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
BOB STUMP
PAUL NEWMAN
SANDRA D. KENNEDY

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER AND SUN CITY WATER DISTRICTS	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM / AGUA FRIA WASTEWATER, SUN CITY WASTEWATER AND SUN CITY WEST WASTEWATER DISTRICTS	DOCKET NO. SW-01303A-09-0343

PRE-FILED TESTIMONY
OF
JAMES M. JENKINS
ON BEHALF OF
ARIZONA AMERICAN WATER COMPANY
MAY 7, 2009

REDACTED VERSION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. James M. Jenkins, 727 Craig Road, Creve Coeur, Missouri 63141.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I hold the position of Vice President, Finance for American Water's Western Division. The subsidiaries within the Western Division include utilities in Illinois, Iowa, Missouri, Texas, Arizona, New Mexico, Hawaii, and California.

Q. WHAT ARE YOUR RESPONSIBILITIES AS VICE PRESIDENT, FINANCE?

A. In this position, I am responsible for leading the finance, accounting, budgeting and rate administration functions within the Western Division.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I graduated from the University of Illinois, at Urbana/Champaign in 1983 with a Bachelor of Science Degree in Accounting, and in 1992 received a M.B.A. Degree, with highest honors, from the University of Illinois, at Springfield. I am a Certified Public Accountant (CPA).

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

A. I have more than twenty-five years of utility experience. I joined American Water Works Company ("American Water") in June 1999.

My utility experience began in 1984 when I joined the Illinois Commerce Commission (ICC) as an accountant. While at the ICC, which is responsible for the rate regulation of state public utilities, I worked on a wide range of regulatory issues in the electric, gas, telephone, and water industries. During my eight year career at the ICC, I held positions of increasing responsibility, including the position of Director of Accounting before joining St. Louis County Water Company in 1993.

At St. Louis County Water Company, I started as the Assistant Manager in Corporate Accounting and was promoted to Manager of Rates in 1994. I was responsible for the financial areas contained within company rate case filings, and assisted with budget preparation. In June 1999, St. Louis County Water Company was acquired by American Water Works, at which time I joined American Water.

At American Water, I have held several positions of increasing responsibility. I was elected Vice President and Treasurer for Missouri-American in June 1999. In this position, I directed the state finance activities for Missouri until 2002. In 2002, I joined the American Water finance team in Voorhees, New Jersey to assist executive management team with the RWE acquisition. In 2004, I was promoted to Vice President, Finance and since this time, I have led several state finance teams within the American system. Today, I lead the finance teams within the Western Division.

I am a member of the American Institute of Certified Public Accountants and have served as Chairperson of the Financial Research Institute of the University of Missouri. I have also served as the Vice Chairperson of the Rates and Revenue Committee of the National Association of Water Companies

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. To explain the impact on Arizona-American Water Company (the "Company") of Mr. Neidlinger's phase-in proposal filed on behalf of the Anthem Community Council.

Q. HAVE YOU REVIEWED MR. NEIDLINGER'S PHASE-IN PROPOSAL?

A. Yes. Anthem Community Council witness Dan L. Neidlinger proposes to "phase-in" the Pulte Advance Repayments made during the 2008 test year ($20.2M) and March 2010 ($6.7M) to alleviate rate shock. This is the first time these specific payments have been subject to a rate determination. Mr. Neidlinger recommends removal of Anthem water

and wastewater investment from Utility Plant in Service and to account for that investment as Plant Held for Future Use and cease depreciation on that plant. Future transfers from Plant Held for Future Use to Utility Plant in Service would occur annually, but without rate relief absent some future action on the part of the Company and the Commission.

Mr. Neidlinger's proposal would immediately remove depreciation from the Company's current cost of service and it does not allow the Company to collect any of the costs associated with the Pulte Advance Repayments.

Q. CAN YOU DESCRIBE THE ACCOUNTING STANDARDS APPLICABLE TO MR. NEIDLINGER'S PROPOSAL?

A. The phase-in proposal, as mentioned by Mr. Neidlinger, would be subject to applicable accounting guidance including the ASC 980-340 (formerly SFAS 92) pertaining to Phase-In Plans and ASC 980-360 (formerly SFAS 90) pertaining to Plant Disallowances.

The Company is a rate regulated utility and does not have the option or election to avoid ASC Topic 980(formerly SFAS 71 and other regulated operations guidance). Topic 980 must be applied to general-purpose external financial statements of an enterprise that has regulated operations if all of the following criteria are met:

- The enterprise's rates for regulated services or products provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.

- The regulated rates are designed to recover the specific enterprise's costs of providing the regulated services or products.

- In view of the demand for the regulated services or products and the level of competition, direct and indirect, it is reasonable to assume that rates set at levels that will recover the enterprise's costs can be charged to and collected from customers. This criterion requires consideration of anticipated changes in levels of demand or competition during the recovery period for any capitalized costs.

SFAS 71 was amended by SFAS 92, *Regulated Enterprises - Accounting for Phase-in Plans.* SFAS 92 deals with the accounting and financial reporting for phase-in plans, so it is applicable to all rate-regulated utilities subject to SFAS 71. It also clarifies the accounting rules on the capitalization of an equity return for financial reporting purposes. A phase-in plan, as defined in SFAS 92, is a method of ratemaking that meets all of the following criteria:

- Adopted in connection with a major, newly completed plant of the utility or one of its suppliers or a major plant scheduled for completion in the future.

- Defers the rates intended to recover allowable costs beyond the period in which those allowable costs would be charged to expense under GAAP applicable to enterprises in general.

- Defers the rates intended to recover allowable costs beyond the period in which those rates would have been ordered under ratemaking methods routinely used prior to 1982 by that regulator for similar allowable costs of that utility.

The phase-in definition includes all cost deferrals, including carrying costs (return of and on investment) associated with major completed plant for first time inclusion in rate determination. Phase-in guidance applies to rate leveling proposals, alternative methods of depreciation such as a sinking fund approach, and rate treatment of capital leases as

operating leases. Under the accounting provisions of SFAS 92, cost deferrals for financial reporting purposes under a phase-in plan are not permitted if substantial physical construction had not been performed before January 1, 1988. This provision effectively bars the creation of regulatory assets for financial reporting purposes in connection with a phase-in plan ordered today by a regulator.

ASC 980-360-35-12 (formerly SFAS 90) provides guidance on cost disallowances. When it becomes probable that part of the cost of a recently completed plant will be disallowed for rate-making purposes and a reasonable estimate of the amount of the disallowance can be made, the estimated amount of the probable disallowance shall be deducted from the reported cost of the plant and recognized as a loss. Section 450-20-55 provides guidance for making a reasonable estimate of the amount of a loss. If part of the cost is explicitly, but indirectly, disallowed (for example, by an explicit disallowance of return on investment on a portion of the plant), an equivalent amount of cost shall be deducted from the reported cost of the plant and recognized as a loss.

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]

Q Does this conclude your surrebuttal testimony?

A Yes, it does.

EXHIBIT JMJ-1

[BEGIN CONFIDENTIAL]

[END CONFIDENTIAL]

EXHIBIT
A-46
ADMITTED

Financial Accounting Standards Board

ORIGINAL PRONOUNCEMENTS

AS AMENDED

Statement of Financial Accounting Standards No. 92

Regulated Enterprises—Accounting for Phase-in Plans

an amendment of FASB Statement No. 71

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Statement of Financial Accounting Standards No. 92
Regulated Enterprises—Accounting for Phase-in Plans

an amendment of FASB Statement No. 71

STATUS

Issued: August 1987

Effective Date: For fiscal years beginning after December 15, 1987, and interim periods within those fiscal years

Affects: Amends FAS 71, paragraph 9
Replaces FAS 71, paragraphs 13 and 14
Amends FAS 90, paragraph 9(b)
Deletes FAS 90, paragraph 9(d)

Affected by: No other pronouncements

Issues Discussed by FASB Emerging Issues Task Force (EITF)

Affects: No EITF Issues

Interpreted by: Paragraphs 3(b) and 3(c) interpreted by EITF Topic No. D-21

Related Issue: EITF Issue No. 92-7

SUMMARY

This Statement amends FASB Statement No. 71, *Accounting for the Effects of Certain Types of Regulation,* to specify the accounting for phase-in plans.

When a utility completes a new plant, conventional rate-making methods establish rates to recover the allowable costs of the plant. Those allowable costs include current operating costs, depreciation, interest on borrowed funds invested in the plant, and an allowance for earnings for the utility (an amount intended to represent a fair return on shareholders' investment in the plant).

The cost of electric utilities' plants constructed in recent years has been much greater than the cost of those completed in earlier years, so that, for some utilities, conventional rate-making methods would result in significantly increased rates when a newly completed plant goes into service. In such cases, some regulators have adopted phase-in plans to moderate the initial rate increase. The objective of those plans is to increase rates more gradually than would be the case under conventional rate making, while providing the utility eventual recovery of all of its allowable costs and a return on investment.

This Statement requires allowable costs deferred for future recovery under a phase-in plan related to plants completed before January 1, 1988 and plants on which substantial physical construction has been performed before January 1, 1988 to be capitalized if each of four criteria is met. Those criteria are (a) the plan has been agreed to by the regulator, (b) the plan specifies when recovery will occur, (c) all allowable costs deferred under the plan are scheduled for recovery within 10 years of the date when deferrals begin, and (d) the percentage increase in rates scheduled for each future year under the plan is not greater than the percentage increase in rates scheduled for each immediately preceding year. If any of those criteria is not met, allowable costs deferred under the plan would not be capitalized. Instead, those costs would be recognized in the same manner as if there were no phase-in plan.

This Statement also reiterates that Statement 71 does not permit an allowance for earnings on shareholders' investment to be capitalized in general-purpose financial statements when it is capitalized for rate-making purposes other than during construction and, with this Statement, as part of a phase-in plan.

This Statement is effective for fiscal years beginning after December 15, 1987, and it applies to existing and future phase-in plans. Application of this Statement to phase-in plans that do not meet the criteria of this Statement will be delayed if the regulated enterprise has filed a rate application to have those phase-in plans modified to meet the criteria of this Statement or intends to do so as soon as practicable and it is reasonably possible that the rate application will be successful. In that case, this Statement will be applied to those phase-in plans when the regulator amends or refuses to amend those plans.

Statement of Financial Accounting Standards No. 92

Regulated Enterprises—Accounting for Phase-in Plans

an amendment of FASB Statement No. 71

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INTRODUCTION

1. FASB Statement No. 71, *Accounting for the Effects of Certain Types of Regulation,* was issued in December 1982. Shortly after the Statement was issued, major events in the electric utility industry caused the Board to review the effects of the Statement on the accounting for those events. After that review, the Board decided to amend Statement 71 to provide more specific guidance on the accounting for some of those events and to change the accounting for others.

2. FASB Statement No. 90, *Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs,* addresses the accounting for some of those events. This Statement amends Statement 71 to specify the accounting for phase-in plans.

STANDARDS OF FINANCIAL ACCOUNTING AND REPORTING

Accounting for Phase-in Plans

3. The term *phase-in plan* is used in this Statement to refer to any method of recognition of allowable costs[1] in rates that meets all of the following criteria:

a. The method was adopted by the regulator in connection with a major, newly completed plant of the regulated enterprise or of one of its suppliers or a major plant scheduled for completion in the near future (hereinafter referred to as "a plant").
b. The method defers the rates intended to recover allowable costs beyond the period in which those allowable costs would be charged to expense under generally accepted accounting principles applicable to enterprises in general.

[1]The term *allowable costs* is used throughout this Statement to refer to all costs for which revenue is intended to provide recovery. Those costs can be actual or estimated. In that context, allowable costs include interest costs and an allowance for earnings on shareholders' investment.

c. The method defers the rates intended to recover allowable costs beyond the period in which those rates would have been ordered under the rate-making methods routinely used prior to 1982 by that regulator for similar allowable costs of that regulated enterprise.

4. If a phase-in plan is ordered by a regulator in connection with a plant on which no substantial physical construction had been performed before January 1, 1988, none of the allowable costs that are deferred for future recovery by the regulator under the plan[2] for rate-making purposes shall be capitalized for general-purpose financial reporting purposes (hereinafter referred to as "financial reporting").

5. If a phase-in plan is ordered by a regulator in connection with a plant completed before January 1, 1988 or a plant on which substantial physical construction had been performed before January 1, 1988, the criteria specified below shall be applied to that plan. If the phase-in plan meets all of those criteria, all allowable costs that are deferred for future recovery by the regulator under the plan shall be capitalized for financial reporting as a separate asset (a deferred charge). If any one of those criteria is not met, none of the allowable costs that are deferred for future recovery by the regulator under the plan[3] shall be capitalized for financial reporting. The criteria to determine whether capitalization is appropriate are:

a. The allowable costs in question are deferred pursuant to a formal plan hat has been agreed to by the regulator.
b. The plan specifies the timing of recovery of all allowable costs that will be deferred under the plan.
c. All allowable costs deferred under the plan are scheduled for recovery within 10 years of the date when deferrals begin.
d. The percentage increase in rates scheduled under the plan for each future year is no greater than the percentage increase in rates scheduled under the plan for each immediately preceding year. That is, the scheduled percentage increase in year two is no greater than the percentage increase granted in year one, the scheduled percentage increase in year three is no greater than the scheduled percentage increase in year two, and so forth.

Modifications of and Supplements to Phase-in Plans

6. Except as provided in paragraph 18 of this Statement, when an existing phase-in plan is modified or a new plan is ordered to replace or supplement an existing plan, the above criteria shall be applied to the combination of the original plan and the new plan. The date when deferrals begin, used in applying the criterion in paragraph 5(c), would be the date of the earliest deferral under either the new or the old plan, and the final recovery date would be the date of the last recovery of all amounts deferred under the plans.

Interrelationship of Phase-in Plans and Disallowances

7. A phase-in plan, as defined in paragraph 3, is a method of rate making intended to moderate a sudden increase in rates while providing the regulated enterprise with recovery of its investment and a return on that investment during the recovery period. A disallowance is a rate-making action that prevents the regulated enterprise from recovering either some amount of its investment or some amount of return on its investment. Statement 90 specifies the accounting for disallowances of plant costs. If a method of rate making that meets the criteria of this Statement for a phase-in plan includes an indirect disallowance of plant costs, that disallowance shall be accounted for in accordance with Statement 90.

Allowance for Earnings on Shareholders' Investment Capitalized for Rate-making Purposes

8. If specified criteria are met, paragraph 9 of Statement 71 requires capitalization of an incurred cost that would otherwise be charged to expense. An allowance for earnings on shareholders' investment[4] is not "an incurred cost that would otherwise be charged to expense." Accordingly, such an allowance shall not be capitalized pursuant to paragraph 9 of Statement 71.

9. In specified circumstances, paragraph 15 of Statement 71 requires capitalization of an allowance for earnings on shareholders' investment (a designated

[2]"Allowable costs that are deferred for future recovery by the regulator under the plan" consist of all allowable costs deferred for rate-making purposes under the plan beyond the period in which those allowable costs would be charged to expense under generally accepted accounting principles applicable to enterprises in general.

[3]Refer to footnote 2.

[4]The phrase "an allowance for earnings on shareholders' investment," as used in this Statement, is intended to have the same meaning as the phrase "a designated cost of equity funds," used in paragraph 15 of Statement 71.

cost of equity funds) during construction. Paragraph 5 of this Statement requires capitalization of an allowance for earnings on shareholders' investment for qualifying phase-in plans. If an allowance for earnings on shareholders' investment is capitalized for rate-making purposes other than during construction or as part of a phase-in plan, the amount capitalized for rate-making purposes shall not be capitalized for financial reporting.

Financial Statement Classification of Amounts Capitalized under Phase-in Plans

10. Cumulative amounts capitalized under phase-in plans shall be reported as a separate asset in the balance sheet. The net amount capitalized in each period or the net amount of previously capitalized allowable costs recovered during each period shall be reported as a separate item of other income or expense in the income statement. Allowable costs capitalized shall not be reported as reductions of other expenses.

Disclosure

Phase-in Plans

11. The terms of any phase-in plans in effect during the year or ordered for future years shall be disclosed. This Statement does not permit capitalization for financial reporting of allowable costs deferred for future recovery by the regulator pursuant to a phase-in plan that does not meet the criteria of paragraph 5 of this Statement or a phase-in plan related to a plant on which substantial physical construction was not completed before January 1, 1988. Nevertheless, the financial statements shall include disclosure of the net amount deferred at the balance sheet date for rate-making purposes and the net change in deferrals for rate-making purposes during the year for those plans.

Allowance for Earnings on Shareholders' Investment Capitalized for Rate-making Purposes

12. The nature and amounts of any allowance for earnings on shareholders' investment capitalized for rate-making purposes but not capitalized for financial reporting shall be disclosed.

Amendments to Existing Pronouncements

13. This Statement amends Statements 71 and 90 as follows:

a. The following sentence is added to the end of the footnote, added by paragraph 9(b) of Statement 90, at the end of the first sentence of paragraph 9 of Statement 71:

> Phase-in plans shall be accounted for in accordance with FASB Statement No. 92, *Regulated Enterprises—Accounting for Phase-in Plans.*

b. Paragraph 13 of Statement 71, as amended by Statement 90, is superseded by the following:

> Appendix B, Statement 90, and Statement 92 illustrate the accounting for the effects of regulation.

c. Paragraph 14 of Statement 71 is superseded by the following:

> The following specific standards and the standards in Statements 90 and 92 are derived from the general standards in paragraphs 9–12. The specific standards in paragraphs 15–17 and the standards in Statement 90 and Statement 92 shall not be used as guidance for other applications of the general standards in paragraphs 9–12.

d. Paragraph 9(d) of Statement 90 is deleted.

Effective Date and Transition

14. Except as provided in paragraph 17 below, this Statement shall be effective for fiscal years beginning after December 15, 1987 and interim periods within those fiscal years. Earlier application is encouraged. At the date of initial application of this Statement, existing phase-in plans shall be evaluated under the criteria of paragraph 5 of this Statement. If those existing plans do not meet those criteria, all allowable costs deferred by the regulator under those phase-in plans[5] that have previously been capitalized shall be written off. The provisions of this Statement that address capitalization of an allowance for earnings on shareholders' investment other than during construction or as part of a phase-in plan (paragraphs 8 and 9) shall not be applied to amounts capitalized in fiscal years prior to the initial application of this Statement.

15. Retroactive application of the provisions of this Statement that address accounting for phase-in plans (paragraphs 5–7, 10, and 11), in fiscal years for

[5]Refer to footnote 2.

which financial statements have previously been issued, is permitted. If those provisions are applied retroactively, the financial statements of all prior periods presented shall be restated. In addition, the restated financial statements shall, in the year this Statement is first applied, disclose the nature of any restatement and its effect on income before extraordinary items, net income, and related per share amounts for each period presented and on retained earnings at the beginning of the earliest period presented.

16. If financial statements for prior fiscal years are not restated as permitted by paragraph 15, the effects of applying this Statement to existing phase-in plans shall be reported as the cumulative effect of a change in accounting principle, as described in APB Opinion No. 20, *Accounting Changes,* and the effect of adopting this Statement on income before extraordinary items, net income, and related per share amounts shall be disclosed.

17. Application of this Statement to an existing phase-in plan shall be delayed if both of the following conditions are met:

a. The enterprise has filed a rate application to have the plan amended to meet the criteria of paragraph 5 of this Statement or it intends to do so as soon as practicable.

b. It is reasonably possible that the regulator will change the terms of the phase-in plan so that it will meet the criteria of paragraph 5 of this Statement.

If those conditions are met, the provisions of this Statement shall be applied to that existing phase-in plan on the earlier of the date when one of those conditions ceases to be met or the date when a final rate order is received, amending or refusing to amend the phase-in plan. However, if the enterprise delays filing its application for the amendment or the regulator does not process that application in the normal period of time, application of this Statement shall not be further delayed.

18. In applying the criteria of paragraph 5 to a plan that was in existence prior to the first fiscal year beginning after December 15, 1987 and that was revised to meet the criteria of this Statement pursuant to paragraph 17 above, the 10-year criterion (paragraph 5(c)) and the requirement that the percentage increase in rates scheduled under the plan in each future year be no greater than the percentage increase scheduled under the plan for each immediately preceding year (paragraph 5(d)) shall be measured from the date of the amendment rather than from the date of the first scheduled deferrals under the original plan.

The provisions of this Statement need not be applied to immaterial items.

This Statement was adopted by the affirmative votes of six members of the Financial Accounting Standards Board. Mr. Lauver dissented.

Mr. Lauver dissents from the issuance of this Statement because it permits including in income an imputed allowance for earnings on shareholders' investment during a phase-in period. He believes that accounting is inappropriate on conceptual grounds because the allowance should be included in income only at the time it is a component of prices charged to customers for services.

Further, he believes it is unwise policy, in the present environment, to authorize special accounting during a phase-in period. Phase-in plans are instigated because rates that would otherwise be charged are unacceptable to customers. Whatever might have been the case in a prior era, evidence now abounds, in the form of disallowances, temporary or indefinite omission of costs from rate base, competition, actual and planned deregulation, and inability to earn allowed rates of return, that the relationship between present costs and future revenues is too tenuous to warrant accounting predicated on the assumption that the marketplace will accept charges tomorrow that it finds unacceptable today.

Mr. Lauver also dissents to the issuance of this Statement because it does not require elimination from balance sheets of certain amounts capitalized as an allowance for earnings on shareholders' investment even though not in compliance with unambiguous provisions of Statement 71 that have been reiter-

ated in this Statement and even though inconsistent with the accounting required for nonqualifying phase-in plans. He believes it is unwise policy to grant an amnesty-like approval of accounting that was determined to be inappropriate in both Statement 71 and this Statement.

Members of the Financial Accounting Standards Board:

Dennis R. Beresford, *Chairman*
Victor H. Brown
Raymond C. Lauver
David Mosso
C. Arthur Northrop
Robert J. Swieringa
Arthur R. Wyatt

Appendix A

EXAMPLES OF APPLICATION OF THIS STATEMENT TO SPECIFIC SITUATIONS

19. This appendix provides guidance for application of this Statement to some specific situations. The guidance does not address all possible applications of this Statement. All examples assume that the enterprise meets the criteria of paragraph 5 of Statement 71 for the application of Statement 71 by the enterprise.

20. Specific situations discussed in this appendix are:

	Paragraph Numbers
Accounting for a phase-in plan that includes an indirect disallowance	21–24
Applications of the definition of a phase-in plan	25–41
"Mirror CWIP"	25–29
Sale with leaseback—capital lease	30–31
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Modified depreciation method	36–37
Deferral of costs before a rate order is issued	38–41
Interaction of disallowance with deferral of costs before a rate order is issued	42–43
Interaction of deferral of costs before a rate order is issued with a subsequent phase-in plan	44–45

Accounting for a Phase-in Plan That Includes an Indirect Disallowance

21. Utility A is an electric utility that operates solely in a single-state jurisdiction. On January 1, 19X1, Utility A's new electric generating plant becomes operational. The cost of that plant is $1 billion.

22. Utility A's regulator orders that the costs of the newly completed plant be phased in over a three-year period, as follows:

19X1—A portion of the return (interest and an allowance for earnings on shareholders' investment) on unrecovered investment is deferred by excluding 25 percent of the cost of the plant from the rate base.

19X2—All of the remaining cost of the plant is to be included in the rate base with no recovery of previously deferred amounts.

19X3—All of the remaining cost of the plant is to be included in the rate base. Also, additional revenue is to be provided equal to the return on unrecovered investment excluded from rates in year 1.

The order does not provide for recovery in any year of a return on Utility A's investment in the deferred amounts. Utility A's weighted-average cost of capital in its latest rate case was 11 percent.

23. The phase-in plan is partially a disallowance of plant costs because no return on investment is provided for the deferred amounts. That disallowance should be recognized in accordance with Statement 90 when it became probable. The amount of equivalent cost disallowed should be determined as shown in Schedule 1. The recorded cost of the plant should be reduced by that amount, and a corresponding loss should be reported in 19X1.

24. The disallowance will reduce revenues only in years 1 through 3, so the depreciation charge that would otherwise be recognized for that plant in years 1 through 3 should be reduced by the amount of the effective disallowance attributable to those years (the amount in column 4 of Schedule 1). Amounts deferred under the plan (the amount for months 1–12 in column 1 of Schedule 1) should be capitalized as a separate asset, and that asset should be amortized as recovery occurs (in months 25–36), using the amounts in column 1 of Schedule 1.

Schedule 1

Utility A
Determination of Effective Disallowance
Return on Investment Disallowed for Amounts Deferred under Phase-in Plan
(in thousands)

Month	(1) Cost Deferral (Recovery)	(2) Cumulative Amount Deferred	(3) R.O.I. on Cumulative Deferral	(4) Effective Disallowance
1	$ 2,292	$ 2,292	$ 21	$ 0
2	2,291	4,583	42	21
3	2,292	6,875	63	41
4	2,292	9,167	84	61
5	2,291	11,458	105	80
6	2,292	13,750	126	99
7	2,292	16,042	147	118
8	2,291	18,333	168	137
9	2,292	20,625	189	155
10	2,292	22,917	210	173
11	2,291	25,208	231	190
12	2,292	27,500	252	207
13	0	27,500	252	224
14	0	27,500	252	222
15	0	27,500	252	220
16	0	27,500	252	218
17	0	27,500	252	216
18	0	27,500	252	214
19	0	27,500	252	212
20	0	27,500	252	210
21	0	27,500	252	208
22	0	27,500	252	206
23	0	27,500	252	204
24	0	27,500	252	202
25	(2,292)	25,208	231	201
26	(2,291)	22,917	210	182
27	(2,292)	20,625	189	164
28	(2,292)	18,333	168	146
29	(2,291)	16,042	147	129
30	(2,292)	13,750	126	112
31	(2,292)	11,458	105	95
32	(2,291)	9,167	84	78
33	(2,292)	6,875	63	62
34	(2,292)	4,583	42	46
35	(2,291)	2,292	21	31
36	(2,292)	0	0	15
Total loss to be recognized in 19X1				$5,099

Computations:

Column (1)—Cost of plant ($1 billion) × .25 × 11% ÷ 12
Column (2)—Column (2) for prior month + Column (1) for current month
Column (3)—Column (2) × 11% ÷ 12
Column (4)—Present value (at beginning of month 1) at 11% (.9167 per month) of amount in Column (3) for prior month

Application of the Definition of a Phase-in Plan

"Mirror CWIP"

25. "Mirror CWIP" is one means of moderating the sudden, one-time increase in rates that would otherwise result from placing a newly completed utility plant in service. Under "mirror CWIP," increasing amounts of construction work in progress (CWIP) are included in the current rate base in the periods before the plant goes into service, providing the utility with a current return on a portion of its investment in construction while the construction proceeds. After the plant is placed in service, a decreasing amount of plant-in-service is excluded from the rate base each year, "mirroring" the pattern in which the construction was included in the rate base. The result of this procedure is to increase rates while the plant is under construction and to reduce the increase in rates in the initial years of the plant's service life.

26. For rate-making purposes, no allowance for funds used during construction is recognized on the portion of the construction that is included in the rate base while the asset is under construction, and an allowance for funds used during construction is recognized on the portion of the plant-in-service that is subsequently excluded from the rate base after the plant is placed in service. The same total amount is capitalized as if no construction had been included in the current rate base. Is "mirror CWIP" a phase-in plan under the definition of this Statement? What financial reporting is appropriate for a "mirror CWIP" plan?

27. The "mirror CWIP" arrangement described above is not a phase-in plan under the definition used in this Statement because it does not defer recovery of costs that would not have been deferred under the methods of rate making used prior to 1982. Rather, it effectively provides a temporary loan from customers to the utility during construction and requires repayment of that loan after the plant is placed in service.

28. If the arrangement is known to be a "mirror CWIP" arrangement at the time of the construction (for example, if that arrangement is required by law or has been specifically ordered by the regulator), an allowance for funds used during construction should be accrued on the total cumulative construction cost in each period for financial reporting. The revenue collected as a result of inclusion of construction in the current rate base should be recorded as a liability to customers, with disclosure of the approximate timing of the repayment that will be required under the "mirror CWIP" arrangement.

29. If the arrangement is not known to be a "mirror CWIP" arrangement when the construction is included in the rate base but the regulator later orders a "mirror CWIP" arrangement, the accounting described in paragraph 28 should be implemented as soon as the nature of the arrangement becomes known. That will require an adjustment for the cumulative effect of the arrangement to date. An amount should be capitalized, with a corresponding accrual of an allowance for funds used during construction, when the "Mirror CWIP" arrangement becomes known. Current revenues should be reduced by an equal amount, and a corresponding liability to customers should be recognized. That amount should be the amount that would have been capitalized if the arrangement had been known to be a "mirror CWIP" arrangement when the revenue was collected during construction. That capitalized amount should be reported in the year in which the "mirror CWIP" arrangement becomes known in the same manner as if it had been capitalized during construction.

Sale with Leaseback—Capital Lease

30. Utility B sells its interest in a newly completed electric generating plant for an amount equal to its cost and leases that interest back under a lease that requires equal annual payments. The sale meets the criteria of FASB Statement No. 66, *Accounting for Sales of Real Estate,* for recognition as a sale, and the leaseback meets the criteria of FASB Statement No. 13, *Accounting for Leases,* for a capital lease. Utility B's regulator includes the lease rentals in allowable cost as they accrue. In the past, Utility B's regulator has treated other leases entered into by Utility B in the same manner, but those leases were for much less significant items of equipment—not for an interest in an electric generating plant. Is this rate-making method a phase-in plan under the definition in this Statement?

31. The rate-making method described is a phase-in plan under the definition in this Statement. Generally accepted accounting principles applicable to enterprises in general require a capital lease to be accounted for much like a purchase of the leased property. The resulting expense related to the lease consists of interest on the remaining lease obligation and depreciation based on the method used for similar owned property. In the early years of a lease, the

lease rentals included in allowable cost as they accrue are significantly less than the sum of interest on the lease obligation and depreciation on the leased asset. Thus, significant deferrals will result. The method also defers recognition of expenses compared with the methods of expense recognition used by Utility B's regulator for similar assets of Utility B prior to 1982 because Utility B's interests in electric generating plants were included in allowable costs in the past based on current provisions for depreciation and for the cost of capital invested in the plants. The use of this rate-making method in the past for leases of equipment does not change this conclusion. The definition is based on the method of rate making used prior to 1982 for similar allowable costs. Similar allowable costs would be those resulting from electric generating plants.

Sale with Leaseback—Operating Lease

32. Utility C sells its interest in a newly completed electric generating plant for an amount equal to its cost and leases that interest back under a lease that requires equal annual payments. The sale meets the criteria of Statement 66 for recognition as a sale, and the leaseback meets the criteria of Statement 13 for an operating lease. Utility C's regulator includes the lease rentals in allowable cost as they accrue. In the past, Utility C's regulator has treated other leases entered into by Utility C in the same manner, but those leases were not for an interest in an electric generating plant. Is this rate-making method a phase-in plan under the definition in this Statement?

33. The rate-making method applied to Utility C is not a phase-in plan under the definition in this Statement because it recognizes rent expense for rate-making purposes in the same way as that expense would be recognized for enterprises in general for this type of lease.

Sale with Leaseback—Profit Recognition Accelerated

34. Utility D sells its interest in a 5-year-old electric generating plant for an amount that exceeds its undepreciated cost by $500,000 and leases that interest back. The leaseback term is 20 years, and there are no renewal options. The sale meets the criteria of Statement 66 for recognition as a sale with full profit recognition, and the leaseback meets the criteria of Statement 13 for an operating lease. Utility D's regulator includes the lease rentals in allowable cost as they accrue and orders Utility D to amortize the profit, for rate-making purposes, over 10 years. The sale occurred at a time when Utility D was about to place a newly completed plant in service. Utility D has not had any similar transactions in the past. Is this rate-making method a phase-in plan under the definition in this Statement?

35. The rate-making method described is a phase-in plan under the definition in this Statement. Generally accepted accounting principles applicable to enterprises in general require a profit on a sale-leaseback transaction to be amortized over the term of the leaseback. Amortization of that profit, for rate-making purposes, over 10 years when generally accepted accounting principles applicable to enterprises in general require amortization over the 20-year leaseback term is equivalent to a deferral of allowable costs. In view of the timing of the rate order on the sale-leaseback transaction, the presumption is that the order was issued in connection with the newly completed plant. The method cannot be compared with methods in use prior to 1982 because Utility D has had no previous transactions of this type.

Modified Depreciation Method

36. Utility E's regulator orders it to depreciate its new electric generating plant, for rate-making purposes, by using an annuity method. Under the method ordered, depreciation increases each year so that the total of depreciation and return on investment stays approximately level over the life of the plant. In the past, Utility E's regulator required the use of straight-line depreciation for electric generating plants. Is this rate-making method a phase-in plan under the definition in this Statement?

37. The rate-making method applied to Utility E is a phase-in plan under the definition in this Statement because (a) it defers depreciation expense compared with the depreciation methods that are acceptable under generally accepted accounting principles applicable to enterprises in general (annuity methods of depreciation are not acceptable under generally accepted accounting principles applicable to enterprises in general) and (b) it defers depreciation expense compared with the method of depreciation used by Utility E's regulator for Utility E's electric generating plants prior to 1982.

Deferral of Costs Before a Rate Order Is Issued

38. Utility F completes construction of a nuclear generating plant and places that plant in service. Util-

ity F's regulator decides that it will complete its examination of the prudence of Utility F's construction cost before rates are adjusted to reflect the cost of operating the plant. During the examination and until rates are adjusted, the regulator orders Utility F to capitalize its net cost of operating the plant (operating costs, depreciation, allocable interest cost, and an allowance for earnings on shareholders' investment, all net of savings that result from operation of the new plant). Is the resulting deferral for rate-making purposes a phase-in plan? What accounting is required for financial reporting?

39. The resulting deferral is not a phase-in plan. The regulator's order to capitalize an amount pending completion of a rate hearing is designed to protect the utility from the effects of regulatory lag[6] in the absence of a rate order—a routine procedure on the part of regulators. The definition of a phase-in plan in this Statement is not intended to encompass actions of a regulator that are designed to protect a utility from the effects of regulatory lag in the absence of a rate order, nor is it intended to encompass the regulator's subsequent treatment of any allowable costs that result from those actions.

40. Under paragraph 9 of Statement 71, Utility F should capitalize that portion of the amount capitalized for rate-making purposes that represents incurred costs that would otherwise be charged to expense, provided that it is probable that future revenue in an amount at least equal to the capitalized cost will result from inclusion of those costs in allowable costs for rate-making purposes. Otherwise, Utility F should not capitalize those costs.

41. Since the situation in this example is neither during construction nor a phase-in plan, Statement 71 does not permit capitalization of an allowance for earnings on shareholders' investment. Accordingly, Utility F should not capitalize, for financial reporting, the portion of the amount capitalized for rate-making purposes that represents an allowance for earnings on shareholders' investment. If recovery of that allowance subsequently occurs, increased earnings during the recovery period will result.

Interaction of Disallowance with Deferral of Costs Before a Rate Order Is Issued

42. Six months after the accounting order referred to in the previous example, Utility F's regulator approves part of the cost of the new plant but disallows $600,000,000—consisting of construction expenditures of $570,000,000 and amounts capitalized for rate-making purposes during this 6-month operating period prior to the rate order of $30,000,000. The recorded cost of the plant before consideration of the disallowance is $4,500,000,000. During this 6-month period, Utility F has capitalized $500,000,000 of net cost for rate-making purposes. This $500,000,000 consists of an allowance for earnings on shareholders' investment of $200,000,000 and incurred costs that would otherwise be charged to expense of $300,000,000. For rate-making purposes, the balance sheet accounts, before and after the disallowance, are as follows:

	Balance before Disallowance	Disallowance	Balance after Disallowance
		(in thousands)	
Plant in Service	$4,500,000	$(570,000)	$3,930,000
Amounts Capitalized Pending Rate Order	500,000	(30,000)	470,000
Combined totals	$5,000,000	$(600,000)	$4,400,000

For financial reporting, how should the disallowance be recognized?

[6]*Regulatory lag* is the delay between a change in a regulated enterprise's costs and a change in rates ordered by a regulator as a result of that change in costs. A shortfall in a utility's net income can occur when regulators set rates prospectively and the estimated or test-period costs on which those rates were based are less than the actual costs that are incurred during the period covered by those rates. Regulators' actions that are designed to protect a utility from the effects of regulatory lag can occur during a rate case but before a rate order is issued, as in this example, and when no rate case is under active consideration. An accounting order to a utility to capitalize the cost of repairing storm damage would be an example of the latter situation. Those actions can also be a part of a rate order. An example of that type of action would be a fuel adjustment clause that is intended to protect the utility from the effects of unanticipated changes in fuel costs.

43. Statement 90 requires a disallowance of plant costs to be recognized as a loss. Utility F should perform the following analysis to determine the loss that should be recognized and how it will be allocated:

a. Assuming that $300,000,000 of the $500,000,000 capitalized for rate-making purposes during the 6-month period was also capitalized for financial reporting (the $200,000,000 allowance for earnings on shareholders' investment would not be capitalized), the total loss recognized by Utility F for financial reporting should be the amount that reduces the combined total of Plant in Service and Amounts Capitalized Pending Rate Order ($4,800,000,000) to the combined total that will be honored for rate-making purposes ($4,400,000,000). The recognizable loss is $400,000,000.
b. Utility F should allocate to Plant in Service the lesser of the amount of the disallowance that was allocated to Plant in Service by the regulator ($570,000,000) or the total disallowance recognized for financial reporting ($400,000,000), or $400,000,000.
c. Utility F should allocate the rest of the disallowance recognized for financial reporting, if any, to Amounts Capitalized Pending Rate Order. In this case, no amount is allocated to that asset.

The recognition of the disallowance and the effect of that recognition on the financial reporting balance sheet accounts are as follows:

	Balance before Disallowance	Recognition of Disallowance	Balance after Disallowance
		(in thousands)	
Plant in Service	$4,500,000	$(400,000)	$4,100,000
Amounts Capitalized Pending Rate Order	300,000		300,000
Combined totals	$4,800,000	$(400,000)	$4,400,000

Interaction of Deferral of Costs before a Rate Order Is Issued with a Subsequent Phase-in Plan

44. Utility G's fact situation is identical to that of Utility F, described in the above examples, except that Utility G's regulator approves all of the costs related to the newly completed plant. Utility G's regulator adopts a formal phase-in plan intended to provide recovery of amounts deferred under the plan and amounts capitalized, for rate-making purposes, during the six-month period from the plant's in-service date to the date of the rate order. How does the phase-in plan affect the financial reporting of the costs deferred during the six-month period?

45. The phase-in plan does not affect the financial reporting of those previously deferred costs described in paragraphs 40 and 41, nor does the existence of those previously deferred costs affect the financial reporting of the phase-in plan. Accordingly, the allowance for earnings on shareholders' investment that was not capitalized previously during the period preceding issuance of the rate order may not be capitalized upon adoption of the phase-in plan.

Appendix B

BASIS FOR CONCLUSIONS

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Appendix B

BASIS FOR CONCLUSIONS

Introduction

46. This appendix summarizes considerations that were deemed significant by members of the Board in reaching the conclusions in this Statement. It includes reasons for accepting certain views and rejecting others. Individual Board members gave greater weight to some factors than to others.

Definition of Phase-in Plans

47. This Statement specifies a phase-in plan definition different from that specified in the December 19, 1985 Exposure Draft, *Regulated Enterprises—Accounting for Phase-in Plans, Abandonments, and Disallowances of Plant Costs.* Comments received on the definition in the Exposure Draft indicated that (a) the definition might encompass some methods of rate making that had been routinely followed for years, (b) the definition could be interpreted to encompass some methods of expense recognition that are accepted for enterprises in general, and (c) the definition was considered ambiguous for phase-in plans related to a supplier's newly completed plant. The Board adopted the definition in this Statement to avoid those problems. The definition now focuses on methods of rate making that defer recognition of allowable costs that would not be deferred under generally accepted accounting principles applicable to enterprises in general and that defer recognition of allowable costs that would not have been deferred by a regulator under the methods of rate making used by that regulator for that same utility in the past.

Accounting for Phase-in Plans

Origin and Nature of Phase-in Plans

48. When a utility places a newly completed plant in service, traditional rate-making procedures establish rates to recover the allowable costs of that plant. The allowable costs include an allowance for return on the utility's remaining investment in the plant, which is greatest in the first year of the plant's service life and decreases thereafter as the plant is depreciated.

49. In recent years, a combination of circumstances caused traditional rate-making procedures to result in a phenomenon called *rate spike.* Rate spike is a major, one-time increase in rates that can result from the inclusion of the cost of new plants in rates under traditional rate-making procedures. One cause of rate spike was the high cost of nuclear power plants. The cost of those plants escalated far beyond initial expectations. Another cause was the high cost of capital. Return on investment, which is based on the cost of capital, is a major part of the cost of operating a nuclear plant. Finally, demand for many utilities'

services has not grown in recent years to the extent that was expected when the decision was made to construct many of the recently completed plants. As a result, plants that were expected to be needed to meet demand have created excess capacity. The increased efficiency of the new plants has not been sufficient to offset the high construction and capitalized capital costs of those plants and the return on investment that would have been included in rates under traditional rate-making procedures.

50. Phase-in plans were developed to alleviate the problem of rate spike. Those plans are intended to moderate the initial increase in rates that would otherwise result from placing newly completed plants in service by deferring some of that rate increase to future years and providing the utility with return on investment for those deferred amounts. Instead of the traditional pattern of an increase in allowable costs followed by decreasing allowable costs for utility plants after the plants are placed in service, phase-in plans create a pattern of gradually increasing allowable costs for the initial years of the plant's service life.

Questions Raised by Phase-in Plans

51. Phase-in plans raise three questions under Statement 71. First, the very existence of a phase-in plan, whereby rate increases are postponed, calls into question whether future rates to be charged to and collected from customers will in fact be set at levels that will recover the enterprise's costs. Paragraph 5(c) of Statement 71 requires that such an assumption be reasonable as a threshold condition for application of that Statement.

52. Some phase-in plans have been discussed in public forums as ways of retaining major customers. Utility officials have stated that major industrial customers would leave their utility's service area or develop alternative sources of supply if rates were increased under normal rate-making procedures sufficiently to recover the costs of a newly completed plant. If rates cannot, immediately after a new plant is put in service, be set at levels to permit recovery of allowable costs, a question arises as to whether economic conditions or customer acceptance will permit collecting rates in the future that ultimately will recover costs.

53. The second question relates to paragraph 5(b) of Statement 71, which requires that rates be designed to recover the specific enterprise's costs of providing the regulated services or products as a condition for application of that Statement. In the past, regulators sometimes have provided rates to recover costs in periods other than the period in which the costs would be charged to expense under generally accepted accounting principles applicable to enterprises in general. The rationale for such differences has been that (a) costs like storm damage or plant abandonments were infrequently occurring and should be spread among customers of multiple years or (b) the regulator did not agree that the cost was a valid period cost of the period in which it would be recognized by nonregulated enterprises. Deferred income tax expense is an example of the latter category. Under phase-in plans, allowable costs that for years have been agreed to be costs of a period are charged to customers in a different period mainly *because otherwise rates are judged to be unacceptably high.*

54. If one accepted a premise that, in periods when rates would be unacceptably high, costs can be moved to a future period, the economic discipline inherent in a process of charging customers for the costs of the services they use would be absent. No constraint would exist on the rate-making process. In the extreme case, nothing would prevent a regulator from providing customers with free electricity and promising recovery of the costs of producing that electricity in future years when an improved local economy might be expected. Some Board members believe that the premise that rates in a given period are based on the cost of services provided to customers in that period provides a necessary constraint to accounting for the type of regulation that was addressed by Statement 71.

55. The third question raised by a phase-in plan is whether it is appropriate to capitalize an allowance for earnings on shareholders' investment after a plant begins operations. Paragraph 15 of Statement 71 requires capitalization of such an allowance as part of the acquisition cost of an asset *during construction.* Statement 71 does not permit capitalization of such an allowance under any other circumstances.

56. The Board notes that an allowance for earnings on shareholders' investment is different from other costs for which recovery is provided by regulators. An allowance for earnings on shareholders' investment is not an incurred cost but is a computed amount of earnings to which equity shareholders are deemed to be entitled if their capital is prudently employed in providing services to customers. Capitalizing such an allowance increases currently reported

income. Some believe that this result is inappropriate and that income should not be recognized until revenues in the form of billable rates for services are realized. They acknowledge that a partial exception is permitted in Statement 71 for an allowance for funds used during construction but question whether that partial exception should be extended to the case of phase-in plans. They view the current recognition of that future income, by capitalizing an allowance for earnings on shareholders' investment, as recognition of income that is not yet earned. This view, in part, led to the Board's decision, in Statement 71, to permit capitalization of an allowance for earnings on shareholders' investment only as part of the acquisition cost during construction of an asset.

Board Conclusions about Phase-in Plans

57. After considering comments received in comment letters on the Exposure Draft, the Board considered the possibility of not permitting any capitalization of allowable costs deferred pursuant to phase-in plans. For the reasons outlined above, the existence of phase-in plans calls into question the applicability of Statement 71. Observation of the actions of regulators over the past few years, since the first phase-in plan was initiated, suggests that some regulators did not view their actions or the resulting accounting to be constrained by the overriding principle that the cost of current services generally should be charged to current customers. Phase-in plans have evolved from a tightly controlled plan, which deferred recovery of some costs for a short number of years and promised recovery of those deferrals through an automatic rate adjustment mechanism within a brief time period, to open-ended plans that deferred costs indefinitely and promised recovery only when, and if, future demand grew to the point that the capacity in question was needed. The Board was concerned that such developments might undermine the credibility of financial reporting under Statement 71.

58. Despite those concerns, the Board decided against a blanket prohibition against capitalization, for financial reporting, of amounts capitalized for rate-making purposes under phase-in plans. Rather, the Board decided that capitalization of allowable costs deferred under some types of phase-in plans should be permitted. The Board believes that if any phase-in plans are to result in capitalization of the allowable costs that are deferred pursuant to the plans, those plans should meet stringent criteria so that they will not undermine the credibility of financial reporting under Statement 71. The Board adopted the four criteria in paragraph 5 as the minimum set of criteria that it believes would satisfy that objective.

59. Many respondents to the Exposure Draft urged the Board not to impose the 10-year criterion, which they view as an arbitrary limit. The Board recognizes that the 10-year period is arbitrary, but any other period (for example, the life of the plant) would be equally arbitrary. Cost of service regulation is based on implicit presumptions that (a) operating expenses should normally be recovered in the period in which the expenses are incurred and (2) an allowance for return on investment should normally be recovered in the period during which the investment is used to provide services to customers. Any departure from those norms requires an arbitrary decision about the appropriate time for recovery. The very existence of a phase-in plan indicates an inability to fully recover currently the allowable costs of delivering services to customers. Further, it represents a failure to realize normal expectations that return on prudent investments in operating plants would be recovered currently and that prudently incurred construction costs would begin to be recovered on a normal (usually straight-line) basis as soon as a plant was put in service. Although those departures from the norms of individual cost-of-service regulation are an adaptation to exceptional circumstances, they are such major departures that, if not tightly bounded, they could undermine the credibility of specialized accounting for regulated enterprises.

60. Some phase-in plans provided for deferral of extremely large amounts, such that phasing in those amounts and providing recovery of deferrals within 10 years was asserted to be not practicable. Board members are concerned that those costs might not be recoverable at all, and the phase-in plan might be nothing more than a means of delaying recognition of the fact that rates based on full cost of service cannot be charged to and collected from customers.

61. Board members were also concerned about changes that have occurred in the underlying environment of the electric utility industry. Cogeneration appears to be growing, some wholesale customers have changed suppliers, and the significant amounts of unused capacity presently in existence indicate that considerable competition, at least at the wholesale level, is possible. Also, some local regulators have not been inclined to support local franchise rights when the possibility of electric utility customers relocating is present. These uncertainties in the electric utility industry reinforced the Board's view

that extraordinary solutions to temporary problems should themselves be temporary and that the 10-year criterion was appropriate.

62. Many respondents to the Exposure Draft urged the Board, if it concluded that the 10-year criterion was necessary, to permit partial application of that criterion. Under that approach, a utility with a phase-in plan that met all of the other criteria but extended beyond 10 years would capitalize the portion of the deferrals under the plan that would be recoverable under the plan within 10 years.

63. The Board considered and rejected partial application of and several alternatives to the 10-year criterion. Alternatives included other qualitative criteria and other quantitative criteria that specified different deferral periods and different methods and periods for recoveries. The Board concluded that it was important to specify a time period in which *all* deferred amounts must be recovered rather than a time period in which only *some* deferred amounts must be recovered. The Board concluded that the 10-year criterion, when considered with the other criteria of paragraph 5, was the maximum acceptable time that met the objective of a set of criteria that is sufficiently stringent that the credibility of financial reporting under Statement 71 would not be compromised. Because the Board views those criteria as an interrelated set, it believes that it should not permit partial application for a phase-in plan that fails to meet one of those criteria.

64. Letters received before the Exposure Draft was issued and comments received on the Exposure Draft recommended that the regulator's selection of a specific allowable cost for deferral should not be important to accountants because any allowable cost can be selected with equal economic effect. The Board agrees that the regulator does have considerable discretion in identifying costs to be deferred under some phase-in plans because those plans merely defer a predetermined amount of allowable costs for a predetermined period of time. Since the Board decided to permit any allowable cost that is deferred for rate-making purposes under a qualifying phase-in plan to be capitalized for financial reporting, this issue became moot.

Limitation on Use of Accounting for Phase-in Plans

65. Some Board members agreed to permit the capitalization of allowable costs for plans meeting the specified criteria even though they believe that deferral of costs in those circumstances is not consistent with the premises that underlie the accounting provisions of Statement 71. Some viewed the regulators' decisions to approve phase-in plans as being driven more by market factors or competition than by the cost of the current services provided to customers. The Board concluded, however, that capitalization for financial reporting of amounts deferred pursuant to certain phase-in plans should be permitted because of the combination of circumstances experienced by electric utilities in recent years as set forth in paragraph 49. The Board views those circumstances as unusual and agreed to the accounting specified in this Statement as a means of addressing those unusual circumstances. On the other hand, the Board believes that the provisions of this Statement can be viewed as a departure from the premises of Statement 71. Accordingly, the Board decided to limit application of this Statement to phase-in plans adopted in connection with plants on which there was significant physical construction before January 1, 1988. The Board concluded that this limitation on the use of phase-in plans is appropriate because the provisions of this Statement are intended to apply in specific, known circumstances. One cannot predict the extent of future competition and deregulation in the electric utility industry or in other utility industries.

Distinction between Phase-in Plans and Disallowances

66. Some existing phase-in plans have deferred allowable costs for recovery in future periods for rate-making purposes and have not provided return on the investment in those deferred costs during the deferral period. The Board considered that type of phase-in plan and concluded that it is, in substance, partially a deferral and partially a disallowance. The environment of individual cost-of-service regulation provides an enterprise an opportunity to earn a fair return on capital invested for the benefit of the enterprise's customers. If no return is provided, the regulator has indirectly disallowed part of the cost of the related plant and the accounting should reflect that disallowance.

Allowance for Earnings on Shareholders' Investment Capitalized for Rate-making Purposes

67. An AICPA Issues Paper, *Application of Concepts in FASB Statement of Financial Accounting Standards No. 71 to Emerging Issues in the Public*

Utility Industry, received by the Board in November 1984, recommended that the Board amend paragraph 9 of Statement 71 to require capitalization of any allowable cost when the criteria of that paragraph are met. Many respondents to the Exposure Draft made the same recommendation. Paragraph 9 requires capitalization only of "an incurred cost that would otherwise be charged to expense." Thus, paragraph 9 does not permit capitalization of an allowance for earnings on shareholders' investment—an allowable cost but not an incurred cost that would otherwise be charged to expense. An allowance for earnings on shareholders' investment provided by a regulator is an imputed cost. Capitalization of that cost would increase currently reported income, a result which some Board members believe is inappropriate. The Board believes that income related to an allowance for earnings on shareholders' investment generally should result from revenue realization, not from capitalization.

68. In the Exposure Draft, the Board proposed to require capitalization of the cost of equity funds (an allowance for earnings on shareholders' investment) in one other limited situation—when that allowance is deferred by the regulator in connection with a short-term cost deferral and recovery is expected either through an automatic rate adjustment clause or in the rates provided in the next rate case. Even though the situation was defined carefully, comments received about that provision of the Exposure Draft indicated that any such requirement would be interpreted broadly. For example, some respondents interpreted the provision in question as contemplating a situation in which the regulator had ordered capitalization of the net cost of operating a newly completed plant during the period from the date of completion of the plant to the date of a later rate order placing the plant into rates even though recovery, if any, will be provided over the life of the newly completed plant rather than through rates provided in the next rate case.

69. After considering comments received, the Board agreed that recognition of a deferred allowance for earnings on shareholders' investment as income in other situations that were specifically mentioned in comment letters was not warranted. The Board decided that it was more appropriate to restrict capitalization, for financial reporting, of an allowance for earnings on shareholders' investment to construction and qualifying phase-in plans than to attempt to define limited other areas for which it would be permitted. That decision reflects both the Board's reluctance to permit premature recognition of income and the practical difficulties of defining situations that would warrant such capitalization. Accordingly, the Board decided not to amend Statement 71 to permit capitalization of an allowance for earnings on shareholders' investment for financial reporting in instances other than during construction or as part of a phase-in plan.

Effective Date and Transition

70. The Board considered whether this Statement should be applied only to phase-in plans ordered after the effective date or to all phase-in plans. Applying this Statement only to phase-in plans ordered after the effective date would diminish both the comparability of the resulting financial statements among enterprises and the year-to-year consistency of financial results of an enterprise that had phase-in plans ordered both before and after the effective date. Phase-in plans extend over a number of years. Applying the Statement only to phase-in plans ordered after the effective date would also permit financial-reporting recognition of phase-in plans that the Board believes could undermine the credibility of financial reporting under Statement 71. Accordingly, the Board decided that this Statement should be applied to all phase-in plans, regardless of whether they were ordered before or after the effective date.

71. In the Exposure Draft, the Board asked whether regulators would be likely to modify existing plans in order to meet the criteria of the final Statement. Comment letters received in response to the Exposure Draft indicated that such changes may well occur. Some respondents noted that their existing phase-in plans call for automatic reconsideration in the event that they do not meet the criteria of this Statement. In view of that response, this Statement provides special transition relief for certain existing phase-in plans. The Board decided that if the regulated enterprise has requested that its regulator amend the phase-in plan in order to meet the criteria of this Statement or intends to do so as soon as practicable and it is reasonably possible that the regulator will change the terms of the plan so that it will meet the criteria of this Statement, this Statement generally would not be applied to that plan until an order is received from the regulator, either revising or refusing to revise the plan. The Board also decided that the criteria of paragraph 5 should be modified for plans that are revised to meet the criteria of this Statement. For those plans, the 10-year limitation and the prohibition against increasing percentage rate increases would be measured from the date of the revision.

72. The Board also considered whether the provision in this Statement, that an allowance for earnings on shareholders' investment should not be capitalized for financial reporting other than during construction or as part of a phase-in plan, should be applied only to amounts accrued for rate-making purposes after the effective date or also to amounts previously capitalized for financial reporting. The Board concluded that although capitalization in circumstances other than construction and phase-in plans can result in questionable income recognition, retroactive restatement would be burdensome and would not be warranted in view of the relatively limited amounts or time periods involved in past practices. Also, the practice is not one that would be likely to undermine the credibility of financial reporting under Statement 71. Accordingly, the Board decided that this Statement should be applied to allowances for earnings on shareholders' investment deferred for rate-making purposes after initial application of the Statement. Retroactive application is not permitted for that item.

Appendix C

BACKGROUND INFORMATION

73. Statement 71 was issued in December 1982, effective for financial statements for fiscal years beginning after December 15, 1983. In early 1984, several different circumstances caused the Board to question whether the application of Statement 71 in practice was what the Board had intended.

74. Subsequent to issuing Statement 71, the Board became aware of several phase-in plans that involved capitalization of an allowance for earnings on shareholders' investment in an operating plant. The Board considered issuing an Interpretation or permitting issuance of a Technical Bulletin to point out that capitalization of such an allowance was not permitted by Statement 71. However, after discussing the nature of phase-in plans and the reasons for their adoption with an affected company and its auditor, the Board decided to explore the use of phase-in plans in more depth before addressing the accounting for those plans.

75. During 1984, rate problems related to new nuclear electric generating plants of several utilities were widely discussed in the financial press. Comments credited to executives of those utilities indicated considerable question [about] whether the utilities could bill rates based on the cost of those plants to their customers without losing a major part of their customer base. Some articles indicated that phase-in plans were likely for certain of those utilities, but they raised significant questions about the assurance of recovery of costs that would be deferred.

76. As a result of Board member concerns, the Board asked the staff to investigate whether guidance about the application of Statement 71 was needed in practice. The staff met several times with committees of the Edison Electric Institute (EEI), the National Association of Regulatory Utility Commissioners, and the Public Utilities Subcommittee of the American Institute of Certified Public Accountants (the AICPA Subcommittee). The Board also met with representatives of those groups and the Federal Energy Regulatory Commission.

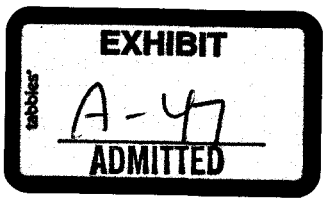
77. In November 1984, the Board received an AICPA Issues Paper on emerging issues in the public utility industry. That paper listed 17 specific issues related to current problems in the electric utility industry identified by the AICPA Subcommittee. The Board also received a comment letter from the EEI on the issues raised in the AICPA Issues Paper.

78. The Board issued an Exposure Draft on accounting for phase-in plans, abandonments, and disallowances in December 1985. More than 1,400 organizations and individuals responded to that Exposure Draft.

79. In June 1986, the Board held a public hearing on the proposals in the Exposure Draft. Sixty-six individuals and firms presented their views at the four-day public hearing.

80. After considering comments received in comment letters and at the public hearing, the Board concluded that additional consideration was necessary to resolve the accounting issues related to phase-in plans. In December 1986, the Board issued Statement 90 to address accounting for plant abandonments and disallowances of plant costs. Subsequently, the Board continued its deliberations on accounting for phase-in plans.

81. In March 1987, the Board met in an open meeting with representatives of the EEI and four public accounting firms that audit large numbers of electric utilities. Subsequent to that meeting, the Board decided to issue this Statement to address accounting for phase-in plans and capitalization of an allowance for earnings on shareholders' investment other than during construction or as part of a phase-in plan.



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PUR Slip Copy

Re New Jersey-American Water Company, Inc.
BPU Docket No. WR95040165

New Jersey Board of Public Utilities
April 01, 1996

Before Tate, president, and Salmon, and Armenti, commissioners.

BY THE BOARD:

I. *INTRODUCTION*

***1** By this Order, and pursuant to *N.J.S.A.* 52:14B-10, the Board of Public Utilities ('Board') renders a Final Decision which modifies the Initial Decision dated January 30, 1996 and adopts a Stipulation in the above-captioned matter.

Petitioner is a regulated public utility which provides water service to approximately 329,000 customers in 114 municipalities in the counties of Atlantic, Burlington, Camden, Cape May, Essex, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Union and Warren. It also provides sewer service within Ocean City and Lakewood Township. The Company also sells water for resale to the Boroughs of Mt. Ephraim and Berlin in the County of Camden, to Middle Township in the County of Cape May, to Mt. Laurel Municipal Utilities Authority ('MUA') Evesham MUA and the Township of Moorestown in the County of Burlington, to the Townships of Livingston and South Orange Village in the County of Essex, to the Boroughs of Red Bank, Avon, Belmar, South Bemar, Matawan and the Keansburg MUA in Monmouth County, and to Elizabethtown Water Company, Shorelands Water Company and Consumers New Jersey, public utilities of the State of New Jersey.

II. *PROCEDURAL HISTORY*

On April 18, 1995, New Jersey-American Water Company, Inc. ('Petitioner' or 'Company'), a public utility of the State of New Jersey, filed a petition with the Board pursuant to *N.J.S.A.* 48:2-21 and in accordance with *N.J.A.C.* 14:1-5.12, requesting an increase in its rates for water and sewer services which would increase the total revenues of the Company in the amount of $52,934,273, an overall increase of 28.61%. In its petition, the Company also requested permission to adopt an initial tariff entitled Sales for Resale - Tri-County Regional Water Service ('Tri-County Service'). This new tariff would establish bulk water sales service for the Company's Tri-County Water Supply Project ('Tri-County Project' or 'Project'). The Tri-County Service Tariff would be available to municipalities, authorities and other water purveyors in the Counties of Burlington, Camden and Gloucester. Out of the total requested revenue requirement increase of approximately $53 million, approximately $35.3 million represents the requested revenue requirement increase for the Tri-County Project and $17.7 million represents the non-Tri-County component of the case.

On May 19, 1995, the petition was transmitted to the Office of Administrative Law ('OAL') and was assigned to Administrative Law Judge ('ALJ') Louis G. McAfoos, III. A Prehearing Order was issued on July 10, 1995. In his Prehearing Order, Judge McAfoos granted intervention to the Township of South Orange Village and the Manasquan Customers' Group. The Manasquan Customers' Group ('MCG') consists of the boroughs of Belmar, Keansburg, Keyport, Matawan and Red Bank, and the Shorelands Water Company. By Order dated July 17, 1995, intervention was granted to a group of municipalities which at that time consisted of the townships of Cinnaminson, Egg Harbor and Upper,

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and the cities of Linwood, Northfield, Somers Point and Ocean ('Municipal Intervenors'). By Order dated August 14, 1995, intervention was granted to a coalition of potential new wholesale customers in the Burlington, Gloucester and Camden County area. At the conclusion of this case, the coalition consisted of the boroughs of National Park, Haddonfield, Woodbury Heights and Westville; the townships of Moorestown, Mount Laurel, Haddon, Deptford, West Deptford and Mapleshade; the City of Woodbury, and the Merchantville-Pennsauken Water Commission ('Bulk Purchasers Coalition' or 'BPC'). Elizabethtown Water Company was also granted intervenor status. Finally, in addition to the foregoing, the Division of the Ratepayer Advocate (the 'Advocate') and Staff participated in this matter.

***2** Public Hearings were held on August 15, 21 and 23, 1995. Discovery conferences were held on August 2 and 3, 1995. Evidentiary hearings were held on September 20, 21, 28, 29 and on October 16, 17 and 18, 1995. Briefs and Reply Briefs were filed in November, 1995, and an Initial Decision ('ID') was issued on January 30, 1996. Exceptions and Replies to Exceptions were filed in February, 1996.

III. *THE STIPULATION*

On January 19, 1996, a partial stipulation was executed by the Company, Board Staff, the Advocate, Elizabethtown Water Company, the Manasquan Customers' Group and the Township of South Orange Village, addressing certain non-Tri-County revenue requirement issues and the issues of capital structure and cost of capital for both the Tri-County and non-Tri-County portion of the base rate case proceeding ('Stipulation').

The Stipulation provides that:

(a) the test year is the twelve months ended September 30, 1995; (b) the overall rate of return is 9.23% and reflects a common equity cost rate of 11.25%. The parties have agreed that both the equity cost rate and overall rate of return would be applied to both the non-Tri-County and the Tri-County components of the case; (c) rate base reflects a level of $481,294,395 (excluding the Tri-County project) and has been revised through December 31, 1995 to reflect construction projects completed and in-service as of that date; (d) pro forma revenue at present rates is stipulated at $184,989,795; (e) the revenue increase associated with the non-Tri-County component of the case, and based upon the aforementioned agreements is $6,000,000.

In addition, Schedule B to the Stipulation depicts the Company's base costs for sewage treatment and purchased water. Schedule C to the Stipulation sets forth rate design parameters agreed to by the parties, and includes specific rates for both public and private fire protection service and also depicts the level of increases for the Company's two sewer tariff groups. Schedule C also sets forth methodologies for establishing general metered service rates for the former customers of the Sunbury Village Water Company ('Sunbury') and the Southeast Morris County MUA. In addition, Schedule C also reflects tariff modifications related to access to meter pit, establishment of a bad check charge, and the billing of the minimum service charge for Ocean City sewer service. Finally, in the Stipulation, the Company has agreed to provide certain reports and other information related to the Company's acquisition of Sunbury's assets pursuant to the Board's Order Approving Acquisition of Water Company in *I/M/O Sunbury Village Water Company, Inc.*, BPU Docket No. WO95040183, dated December 21, 1995.

By letter dated January 23, 1996, the Municipal Intervenors advised that they would take no position with regard to the Stipulation. By letter dated January 25, 1996, the Bulk Purchasers Coalition advised that it did not object to timely consideration of the Stipulation by ALJ McAfoos with the general understanding that all litigated issues are excluded from the Stipulation and continue to be fully con-

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tested.

IV. *THE TRI-COUNTY PROJECT*

*3 The record indicates that in the New Jersey Department of Environmental Protection's ('DEP') 1982 Statewide Water Supply Master Plan, and in the Master Plan's subsequent updates, the DEP recognized the Tri-County Project as southern New Jersey's only long term feasible alternative water supply source to the Potamac-Raritan-Magothy ('PRM') aquifer, the major source of water supply for the region. (PT-6 at 11). In 1987, the DEP concluded a study known as the Camden Metropolitan Area Feasibility Study ('Study') which recommended a regional water supply system in order to reduce reliance on and protect the PRM aquifer, and recommended that use of PRM water be reduced by 35% of that pumped in 1983 (PT-6 at 12). According to the record, widespread pumping of water from the PRM aquifer has resulted in precipitous declines in water levels over the years, resulting in three principal impacts: (1) declining water levels which are reducing capacity from existing wells, (2) ground water contamination which is becoming more common, and (3) salt water intrusion in the southern portion of the region which is increasing as fresh water is removed from the aquifer (*ibid.*).

Two alternative solutions to the overuse of the PRM acquifier were considered by DEP. The first was to purchase water from Philadelphia by means of a submerged pipeline that would be constructed across the Delaware River. The second alternative that DEP examined was development within the State, of a regional water supply system. The Study recommended that a treatment plant be constructed to take water from the Delaware River, treat it, and deliver the water through a pipeline transmission system to Burlington, Camden and Gloucester counties. This latter alternative was accepted by DEP in 1988 (PT-6A, Schedule 3), and Petitioner agreed to design, finance and construct the project. By letter to the Company dated January 19, 1993, DEP reaffirmed its support for the Tri-County Project as the regional water supply system to serve Burlington, Gloucester and Camden Counties, and as the key to meeting the future water supply needs of this growth region of New Jersey as well as protecting the PRM acquifier from permanent contamination (PT-6A, Schedule 4). Initial project facilities, including an intake, 30 million gallons per day ('MGD') treatment capacity, and a transmission pipeline, were estimated at the time of the petition to cost $186 million (PT-6 AT 16).

V. *INITIAL DECISION*

As noted above, on January 30, 1996, ALJ McAfoos issued his Initial Decision, and on January 31, 1996, the Initial Decision was filed with the Board. In his Initial Decision, ALJ McAfoos approved the partial Stipulation, finding that the parties to the Stipulation had voluntarily agreed to the settlement, that the settlement fully disposes of those enumerated issues in controversy, is consistent with law and is in the public interest, and that the partial Stipulation met the requirements of *N.J.A.C.* 1:1-19.1.

*4 With respect to the Tri-County Project, the ALJ made several findings. First, regarding the size of the plant, he found

that the plant as constructed represents a reasonable approach to supplying the water requirements of the South Jersey region. The provisions made for future expansion represent an appropriate forward-looking view to insure that small dollar expenditures now will result in more substantial savings in the future when additional customer demand requires plant expansion. I disagree with the Advocate's position that the plant represents a major overbuild. (ID at 7-8).

He further stated that given the DEP mandated cutbacks on PRM aquifer reliance, the bulk users have no other viable alternative, and he concluded that

[t]he Company planned the [Project] to serve the regional requirement and prepare for future region-

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al growth. I *FIND* that the Company acted reasonably and prudently in designing the plant and direct that it be granted full rate base recognition in this proceeding.' (ID at 8).

With regard to the assignment to customers of the direct costs of the Project, ALJ McAfoos determined that because the new municipal bulk customers will take water from all sources of supply, that is, ground water which is commingled in the Company's system with Project water, it is inappropriate to assign the direct cost of the Project to the bulk customers (ID at 9-10). The Judge found 'that it is most appropriate to employ a blended rate, which will put all customers, both franchise and bulk, in a comparable position. (ID at 10). Therefore, ALJ McAfoos found that a blended rate is the most appropriate rate to employ for both franchise and bulk customers. (*Ibid.*)

With regard to the BPC proposal that bulk customers should pay less than franchise customers because large bulk customers traditionally have higher load factors, the Judge found the proposal to the unreasonable and unsupported by the record. (ID at 11).

With regard to the Advocate's proposal of a 'step-up' rate which would assess an additional $.50 per thousand gallons to bulk customers who did not sign up with the Company within twelve months, ALJ McAfoos determined that the 'step-up' rate was inappropriate and unnecessary at this time because the DEP's mandate to municipalities to reduce groundwater usage should serve as sufficient incentive for the bulk customers to undertake timely negotiations with the Company. (*Ibid.*)

The ALJ also determined that the Company's existing ratepayers as well as its shareholders should shoulder the burden of any possible revenue shortfall caused by delays in signing water supply contracts with the bulk purchasers. The ALJ stated that although the Company voluntarily agreed to construct the Project, it did so with certain well-founded expectations that the DEP would enforce its directives for usage reduction in the aquifer. Moreover, the Company expended significant funds for construction in anticipation of the need of the bulk users and the region based upon assurances of the DEP. In order to provide for adequate sharing of the burden of this new facility, while not giving either prospective bulk purchasers or the Company an undue bargaining advantage during bulk contract negotiations, ALJ McAfoos determined that the Company should be permitted to defer one-half of its revenue shortfall occasioned by the Project's supply sales delay commencing six months after the issuance of a final Board Decision in this case. (ID at 12).

***5** With regard to the Company's proposal to equalize its rates statewide throughout its operational areas, the New Jersey, Monmouth and Commonwealth Tariff Groups, the Judge found that a statewide rate be should implemented at this time since all of the Company's customers receive comparable service on a comparable basis. The Judge reasoned that by distributing the burden of system improvements to all customers, the relative impact is decreased. Moreover, because all Company customers are benefiting by the relative economies of scale, system integration and administration which the unified Company produces, all customers should equally shoulder the costs involved. (ID at 12-15).

With regard to the rate phase-in proposals offered by the Advocate and the BPC, the Judge determined that no phase-in should be implemented at this time, and the Company should be afforded full recognition of its investment in the Project. (ID at 17). While the ALJ admitted it is a commendable undertaking to attempt to mitigate the effect of rate shock on customers, the ALJ reasoned that the financial integrity of the Company must be balanced against the needs of the ratepayers. That is, the Judge reasoned that the potential negative impact on the Company's credit rating which might result from write-offs of deferrals caused by a rate phase-in would have to be balanced against a customer

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bill reduction under the Ratepayer Advocate's plan of less that $3.50 per month. The ALJ concluded it would be short-sighted and inappropriate to risk the financial integrity of the Company and its ability to provide safe and adequate service over the long term for such a small monthly sum. (ID at 18-19).

With regard to the method of allocating distribution mains to South Orange Village (the 'Village'), the ALJ recognized that, pursuant to the findings of the cost-of-service studies of both the Company and the Advocate, the Village is not fully supporting its service under existing rates. Therefore, given the contractual commitments of the Village with the Company and its potential to sell excess water to the Township of Livingston at the ultimate expense of the Company which currently provides water to Livingston at a rate higher than that charged to the Village, the ALJ advised that a five percent increase to the Village, as recommended by Board Staff, is appropriate. (ID at 19-21).

With regard to the Manasquan Customers' Group, ALJ McAfoos determined that, given the magnitude of the overall increase in this case, it would be inappropriate to implement a rate reduction as demanded by the Manasquan Customers' Group, notwithstanding its present over contribution as shown by the cost-of-service studies submitted by the parties. On the other hand, the ALJ accepted as most appropriate the Company's proposal of a zero increase to the MCG. He stated that in time, the Manasquan Customers' Group should reach equilibrium with the overall system cost of service. (ID at 21-23).

V. *EXCEPTIONS*

***6** Exceptions to the Initial Decision and Replies to Exceptions were filed by Staff, the Advocate, Company, Bulk Purchasers Coalition, and the Manasquan Customers' Group. Our review of the record in this matter, including the Exceptions and Replies to Exceptions [FN1], leads us to conclude that essentially, the issues addressed by the various parties can be categorized into three areas: (a) the size of the Tri-County Project and the appropriate adjustment to the Company's rate base; (b) the appropriate mechanism to recover any additional revenue requirement related to the Project; and (c) the appropriate allocation of the Project's costs among the Company's Tariff Groups.

(A) *SIZING OF THE PROJECT*

The Advocate disagreed with the Judge's determination that the Project's plant size is reasonable (RAe at 1-3). The Advocate argued that the Project's treatment plant is improperly sized. The Advocate argued that the Company has actually constructed a treatment facility to provide a capacity of 50 MGD, and not 30 MGD as represented by the Company (RAe at 2).

The Advocate argued that the treatment facility can easily be increased from a 30 MGD rating to a 50 MGD rating with an additional capital investment of $19 million (Rb at 18) [FN2]. The Advocate argued that if the Company were to construct a facility of only 30 MGD with no provisions for expansion, the costs would not equal the Company's construction investment of $112 million. The Advocate determined that using the $112 million investment figure and adding to that the additional investment figure of $19 million as computed in the Company's position above, provides a closer realization of the full capacity of the Project. The Advocate has offered a formula to support its position which calculates a weighted capacity for the Project of 42.75 MGD ($112 million/$131 million X 50 MGD). (ID at 6-7). Using this weighted capacity of the plant of 42.75 MGD, the Advocate calculated that only $78.4 million of the Company's $112 million investment in the plant will be used and useful. (30 MGD projected plant output/42.75 MGD weighted capacity of the Project equals 70%. 70% X $112 million equals $78.4 million).(Ibid.)

The Bulk Purchasers Coalition did not provide a witness with respect to the sizing of the Project.

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However, BPC witness Steven Gabel testified with respect to the revenue requirement phase-in alternative and suggested that the Company has built a 50 MGD system. He stated that certain internal portions of the plant have been scaled back to provide the present total of 30 MGD. Mr. Gabel stated that with a small incremental investment, the system can be expanded to 50 MGD (BPCT-1 at 15-16).

The Company argued that the treatment plant is sized and rated at 30 MGD and is designed to meet the needs of its existing franchise and anticipated new bulk customers while complying with DEP mandates (Cb at 10-11). The Company argued that the 30 MGD capacity is the smallest practicable size capable of addressing the requirements of the Company and the other Tri-County purveyors and provides the necessary capacity for maximum day requirements, in-plant use, and unavoidable pipeline leakage (Cb at 11). The Company asserted that nearly all of the investment in the treatment plant was installed to meet the needs of processing 30 MGD and that only few of the structures in the treatment plant were sized to meet future needs or expansion (Ce at 1) consistent with prudent engineering practices which demand that future water supply needs must be considered in planning and constructing a plant intended to meet the needs of a rapidly expanding service region (Ce at 2).

*7 The Company stated that the 30 MGD rating is not merely the result of a restriction on the treatment process caused by the equipment employed, but is a function of the additional facilities needed to be employed to bring the facility from a rating of 30 MGD to 40 MGD. Company witness Howard Woods, P.E., testified that the additional facilities necessary to upgrade the present 30 MGD facility to a 40 MGD will require an approximate $15 million investment. An additional 10 MGD expansion from 40 MGD to 50 MGD will require an approximate $4 million investment. (T10/17/95 at 122).

The Company stated that certain components were designed and constructed without regard to treatment plant capacity. These facilities include the 15 million gallon raw water reservoir, the backwash clarifiers, the control room, the plant mechanical shops, the pilot plant laboratory area, the operator's laboratory, locker rooms and toilet facilities, parking areas, site work, storm drainage, the storm water retention basin, sanitary sewers and other comparable facilities (PRT-1 at 9).

The Company also stated that certain facilities were constructed to accommodate future growth. These include the intake pipelines from the Delaware River, the structure housing the raw water pumps, the pipeline connecting the raw water pump station and the treatment plant, the structure housing the low lift pumps, the structure housing the chemical storage equipment, an area of operations building to house one filter and the structure housing the high service pumps. These facilities cost approximately $2.4 million and are justified because of the uncertain future availability of suitable land, environmental concerns and cost. (Cb at 18).

Staff, in its Brief, Reply Brief and Exceptions to the Initial Decision argued that the record supports the Company's assertion that prudent engineering and cost considerations dictate the sizing of the transmission pipeline as installed.

With respect to sizing of the treatment facility, Staff believed that consideration must be given to the water supply needs of the region for which the Tri-County Project was constructed. Staff pointed out that the Company will need to meet the demands to serve its customers and the demands of a region of the State which has experienced significant growth during the past decade. This growth factor, which led to the need for the Project, is expected to continue. (Sb at 12-16). Staff also asserted that the Company has clearly supported its position as to the sizing of the treatment facility and that in order to expand the facility by an additional 10 MGD (from 30 MGD to 40 MGD), significant additions will be needed (Sb at 13).

Staff also argued that certain plant components which were designed and constructed to service the

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treatment facility's 30 MGD capacity are not sensitive to rate capacity within certain limits. They are the raw water reservoir, clarifiers, site work, control room, mechanical shops, pilot plant lab, airwash at the intake and chemical storage at the intake. Although these components can support 100 MGD usage, Staff considered these not to be oversized since they are 100 percent required at even 30 MGD (Sb at 13-14).

***8** The ALJ, as indicated above, has determined that the plant as constructed represents a reasonable approach to supplying the water requirements of the South Jersey region, and that the provisions made for future expansion represents an appropriate forward looking view to insure that small dollar expenditures now will result in more substantial savings in the future. The Initial Decision supports the position of the Company.

We have examined the components constructed to accommodate future expansion beyond 30 MGD and believe that the Company exercised good judgment in its sizing of these facilities. Further, our review of the record leads us to conclude that, of $112 million expended on the Project treatment plant, only $2.4 million was invested in plant related to future expansion (PRT-1 at 10); that, in our opinion, sound engineering and management compels a utility to plan for future growth; and that it is prudent to maintain some additional capacity for anticipated growth.

The Board disagrees with the Advocate's witness, David J. Samuels, P.E., who attempts to impose a formulaic weighted plant capacity. It is unclear as to the basis or precedent for its use in the determination of capacity. We do not believe that the use of this methodology in disallowing 30% of the rate base associated with the plant is well supported and, therefore, reject its use in this case.

Therefore, the Board *FINDS* that the plant is properly sized to allow the Company to meet its obligation to serve and to have a level of extra capacity in order to meet the demands of new homes and businesses in a region which has experienced significant growth and will continue to experience growth into the future.

(B) *REVENUE RECOVERY*

The witness for the Advocate, Glen Watkins, proposed a seven year phase-in plan. This seven year plan is to be implemented using tariff riders published as part of the rate schedules. Mr. Watkins stated that this will provide ratepayers with a level of increases expected each year, and will also provide the Company a better level of comfort in that it will be able to collect any deferred revenues. The proposed tariff rider will not be impacted or changed by future unrelated increases during the phase-in plan. (RPA-T-6 at 4; Rb at 41).

Under the Advocate's plan, the rate for the Project in year one would be $3.2186 and increase in year seven to $3.8343 (RPA-T-6, Scheduled GAW-17(S)). This calculates to annual increases of approximately 2.96% per year (*ibid.*). Mr. Watkins also calculated rates assuming the Board denies the Advocate's used and useful adjustment to plant in rate base. Those rates would be $3.2627 in year one and increase to $4.2547 in year seven. This calculates to annual increases of approximately 4.5% per year. (RPA-T-6, Schedule GAW-18(S)).

With respect to the financial impact of the proposed phase-in plan, Mr. Watkins structured the plan to allow the Company to earn the stipulated rate of return of 9.23% over the life of the phase-in. The actual rates of return will increase each year from 8.35% in year one to 10.56% in year seven. Mr. Watkins testified the 8.35% rate of return in year one will not have a severe impact on the Company's financial stability because the investors will know the rates of return in the later years will be higher than the cost of capital. (RPA-T-6 at 9-10). Lastly, Mr. Watkins testified that should the Board not recognize the Advocate's used and useful adjustment to the Project, rate base would be higher and therefore, the actual rate of return in year one would be

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8.05% and increase in year seven to 11.06%. (RPA-T-6, Schedule GAW-18(S)).

***9** The witness for the Bulk Purchasers Coalition, Steven Gabel, testified that in his opinion the Project has been built with a total daily capacity of 30 MGD, but the plant and its transmission system are in essence a 50 MGD system (BPCT-1 at 15-16). He stated that certain internal portions of the plant have been scaled back to provide the present total of 30 MGD. Mr. Gabel stated that with a small incremental investment, the system can be expanded to 50 MGD. (*Ibid.*)Therefore, any long term pricing policy to set initial rates for service from the Project should recognize the economies of scale associated with these assets (BPCT-1 at 16).

The BPC's witness Gabel further argued that by the use of a phase-in approach the capital recovery of the Project will grow over time. The Company will earn the same return over time as traditional ratemaking but recovery is deferred, with interest, so that the Company's recovery of carrying charges on its capital investment more clearly matches the utilization of the Project. (BPCT-1 at 19). Mr. Gabel suggested the use of a 25 year phase-in and an initial rate established at $3.07. This $3.07 initial rate will increase 3% per year and after the 25 year period the Company will be kept whole. (BPCT-1 at 20 and Exhibit SG-3). This phase-in proposal would result in approximately $58 million being deferred in the first nine years of the Project before the cross-over in positive income occurs in the year 2005 (ID at 17).

The Company maintained that it is entitled to full recovery of the investment and expenses associated with the Project. The Company believed that recognition of its investment in the Project should come from customers using the Project, whether franchise or bulk sales, with recovery based upon the usage of each type of customer.

The Company is also concerned about the impact the cost recovery associated with the Project has on existing franchise customers and to initial rates for non-franchised customers. It raised this concern in previous base rate case proceedings when the Company sought and failed to receive an allowance for Construction Work in Progress (CWIP). However, since the Project facilities are about ready to go into service, CWIP is no longer a viable alternative (*Ibid.*)

The Company, subsequently, retained outside expertise to review various alternatives, including a phase-in approach for the Project costs. Based on that review, the Company determined that a phase-in approach would create unacceptable consequences in financial reporting for the Company. The Company's witness, Michael J. Hamilton, testified that the Statement on Financial Accounting Standard No. 92 (SFAS No. 92) does not prohibit the use of a rate phase-in of Project costs, but it does restrict how a utility may book phase-in deferred costs for financial reporting purposes. Under **SFAS 92**, even with Board approval, the Company stated that it would be prohibited from booking any deferred costs for financial reporting purposes. (Cb at 52). As stated by the Company, the underlying rational of **SFAS 92** is the uncertainty that future Boards will honor the commitment made by a previous Board to ensure recovery of deferred costs. (*Ibid.*)

***10** The Company argued that the restriction on reporting deferred cost recovery imposes drastic consequences for the Company and for other investor-owned water utilities in New Jersey. Under the Bulk Purchaser Coalition's phase-in plan, the Company has estimated that it would be required to report a $32 million loss net of income and GRAFT taxes (Cb at 50). Under the Advocate's phase-in plan, the Company has estimated that it would be required to report a $10 million net loss using the used and useful approach and, a $14 million net loss using the full recognition approach. The Company has asserted that reporting such projected losses, along with its corresponding reduction in earnings, would, in the financial market's outlook, cast the Company in a negative light. (Cb at 62).

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Additionally, the Company's credit related indicators would likely fall raising the risk profile of the Company and increasing the cost of the Company's debt and equity capital (Cb at 55-61).

Lastly, the Company asserted that a phase-in constitutes improper rate-making because it burdens future ratepayers with costs that rightfully belong with present ratepayers served by the Project. The Company argued that 'the time has come to deal with [Tri-County Project] relief, it cannot and should not be put off to some future time.' (Cre at 6).

Staff argued that the Company is entitled to additional annual revenues in the amount of $33,486,000, reflecting the traditional approach for the recovery of the Company's full Project investment of $186,000,000, on the stipulated rate of return of 9.23% (Sb at 23).

Staff's analysis of the approaches set forth by the parties in this proceeding and their effects upon ratepayers, the Company and its shareholders, led it to conclude that in order for a phase-in plan to properly benefit all parties it would have to be spread out over a long period of time. However, they pointed out that the phase-in plan proposed by the BPC's witness, Mr. Gabel, would have the Company deferring approximately $58 million of its revenue requirement over the first nine years of the Project or approximately 2 full years of revenue requirement applicable to the Project. Similarly, the phase-in plan proposed by the Advocate's witness, Mr. Watkins, would have the Company deferring approximately $26 million of its revenue requirement during the first three years of the phase-in. (Sb at 24).

Judge McAfoos, in his Initial Decision, recommends that the Company receive full recognition of the investment in the Tri-County Project and that no phase-in be employed (ID at 19). He points out that any phase-in plan adopted by the Board would force the Company to recognize a loss in any period full recovery was not provided (ID at 17). Balancing the interests of the ratepayers and the financial needs of the Company, he states that it would be short-sighted and inappropriate to risk the financial integrity of the Company and its ability to provide safe and adequate service over the long term (ID at 18-19).

***11** The Board, after review of the entire record herein, *FINDS* that the full revenue requirement attributable to the Tri-County Project should be recognized for rate purposes with no phase-in, and concurs with the ALJ's Initial Decision on this issue. We are concerned that any phase-in plan would not only result in the deferral of real earnings, but also could result in the inability of the Company to recognize for financial reporting purposes any revenue deferred as part of the phase-in. The Company has stated that if the Board were to accept a phase-in plan, there would be an immediate write-off required of the deferrals created through the phase-in plan. This would require the Company to recognize a loss in any period full recovery is not provided.

We are also concerned with the impact a phase-in could have on the credit rating of the Company. A downgrade from the Company's current 'A' rating category to the 'BBB' rating category would obviously increase future borrowing costs. Staff's estimate is that the interest rate spread between the single A rating and the triple B public utility debt is approximately 40 basis points under the current favorable market conditions. The Board has always recognized that utilities must have access to needed capital on attractive terms under all market conditions so as to assure continued safe, adequate and proper service. The Board is cognizant that once a utility's debt is downgraded, it normally takes considerable time and expense to regain the financial position necessary to justify an upgrade (PRT-6 at 7). We believe that it is not appropriate to require the Company to defer revenues for the Project, thus facing not only a loss of earnings, but a write-off of reported earnings during the initial periods of any adopted phase-in plan.

(C) *ALLOCATION OF COSTS - STATEWIDE*

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RATE

Initially, the Advocate accepted the concept of statewide equalization of the rates for the Company's three tariff groups, namely, the New Jersey Tariff Group, the Monmouth Tariff Group and the Commonwealth Tariff Group, and proposed a fixed charge of $5.75 a month for all 5/8 inch meters and a volumetric charge of $3.7752 per thousand gallons of water sold. The Advocate dropped the concept of statewide rate equalization opting for phase-in of rates for the New Jersey Tariff Group and differential rates for both the Commonwealth and Monmouth Tariff Groups. (Rb at 60-61). It also argued that it is inappropriate to assign the direct cost of the Project to the bulk users.

The BPC objected to assigning the direct costs of the Tri-County Project to bulk, or wholesale, customers. The BPC argued that its water should be priced according to the average cost of all the Company's sources of water and not just the Tri-County water. (BPCT-1 at 11-13). In addition, the BPC argued that appropriate cost based wholesale rates should be lower than retail by 6.5% to reflect backing out the costs of small mains and local storage, service elements which wholesale customers do not take, but which were included in the Company's cost of service study. (BPCe at 1-10).

***12** The Company proposed rate equalization for its three tariff groups. Statewide rate equalization would conclude a process that was begun by the Company in 1988 when the present New Jersey American Water Company was formed by merging New Jersey Water Company, Commonwealth Water Company and Monmouth Consolidated Water Company into one entity. (PT-2 at 7-10; PT-10 at 12-17). The Company proposed a statewide fixed service charge for 5/8 inch meters of $7.70 on a monthly basis and a volumetric charge of $3.7786 per thousand gallons of water sold (PT-10 at 19-21). However, the Company also proposed to assign one-half of the Project facilities to the New Jersey Tariff group (PT-10 at 11).

Board Staff accepted the statewide rate equalization concept but priced all 5/8 inch meters at the rate of $6.72 on a monthly basis and a volumetric rate of approximately $3.68 per thousand gallons of water sold. Staff argued that neither the Company's nor the Advocate's cost of service study was truly representative of all the various cost categories which should have been included, and the appropriate allocation of those categories (ID at 14). It also opposed a direct assignment of half of the Tri-County Project costs as proposed by the Company (Sb at 36). Staff disagreed with the BPC's assertion that wholesale rates should be 6.5% lower than retail because BPC customers will not take the full bundle of services, for several reasons: the record reflects that four of the BPC's members do in fact rely upon the Company's local distribution and storage facilities, no evidence exists as to what kinds of services BPC members will need since no contracts have been signed, and the wholesale customers whose rate designs the BPC points to as examples, South Orange Village and the Manasquan Customers' Group, take service under differing conditions from the BPC customers. (Sre at 5-6).

ALJ McAfoos concurs with Staff's position, concluding that 'neither the Company's nor the Advocate's cost of service study presented a clear cut and appropriate view of cost allocation which should be made in the context of this case.' (ID at 14). And he concluded that water from all sources of supply will be used to serve the new municipal bulk customers and the franchise customers of the Company.

The Board *FINDS* the ALJ's rationale persuasive and will adopt a statewide rate for the Company. We agree that the retail customers of the Company should be treated in the same manner as the retail customers of the bulk purchasers in that each customer's rate will reflect a blend of Tri-County water with existing groundwater supplies. Water which will be sold to the bulk customers will not be segregated according to whether or not it originated from the Tri-County Project or from all other sources of supply. Groundwater and Project water

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will be commingled and sold to all customers. Finally, based on the record, we agree with Staff that the BPC's rationale for receiving a special discounted rate is not persuasive.

***13** As indicated above, we have reviewed the entire record in this matter including the Initial Decision of ALJ McAfoos, and we have addressed the issue of the sizing of the Tri-County Project and the appropriate adjustment to the Company's rate base; the mechanism to recover any additional revenue requirement related to the project; and the appropriate allocation of costs among the Company's Tariff Groups. In summary, therefore, and based on the foregoing, the Board *FINDS* the Initial Decision and Stipulation to be reasonable, in the public interest, and in accordance with law, and with one exception more fully set forth below, *HEREBY ADOPTS* and accepts the Initial Decision and Stipulation as its own, incorporating by reference their terms and conditions as if fully set forth at length herein.

VI. *THE MANASQUAN CUSTOMERS' GROUP*

As noted above, ALJ McAfoos recommended that the Manasquan Customers' Group rates should be maintained at their current levels given the magnitude of the increase to the Company's other customers (ID at 23). This position was proffered by the Company and supported by Board Staff. The Advocate recommended increasing MCG rates by 4.32% even though the Advocate's own cost of service study showed that the MCG contributes revenues to the Company well in excess of the Company's cost of service. The MCG proposed, among other things, that the rates for uninterruptible service be rolled back to reflect the true cost of serve as set forth in the MCG cost of service study. They argued that continuing an excessive Manasquan rate to ease the burden on the Company's retail customers favors those customers over the Group's retail customers by asking the Group to pay for costs of facilities that do not serve them.

The record shows that the Company, Advocate and the MCG each presented a cost of service study which demonstrated that the MCG customers were paying 22.97% (PT-10, Schedule A), 20.93% (MCGb at 2), and 28.49% (MCG-SOV-2), respectively, in excess of the cost to serve them. According to MCG calculations, the impact on the MCG on an annual basis utilizing these cost of service studies is between $611,633 and $831,071 (MCGb at 3). No party has disputed the fact that the MCG is being overcharged. All three cost of service studies utilize the base-extra capacity method of allocation as recommended by the American Water Works Association to allocate costs. In our opinion, the allocation of costs is a matter of judgment and there is no guarantee of precisely reflecting the cost of service in each tariff group or to each customer or customer group. While we are of the opinion that the Company's cost of service study more appropriately reflects the proper allocation to this customer group, we point out that this is but one criterion that must be considered by the Board in balancing the needs of the Company and its various customers. Therefore, we conclude that some movement toward elimination of the overpayment is warranted in this case, and have determined that a reduction of one-half of the overpayment as reflected in the Company's cost of service study (from 22.97% to 11.5%) is reasonable and should be implemented for service rendered on and after the date of this Order. The effect of this reduction on the Company's General Metered Service customers is approximately one cent per thousand gallons ($.01). We note further that the Manasquan Customers' Group is not foreclosed by this Order from arguing in future rate cases for additional relief.

***14** Further, the Board *ORDERS* the Company to certify both the cost of the Tri-County Project and the date the Project is ready to be placed into service, with rates to become effective for service rendered coincident with the in-service date of the Project. In the event that the final cost certification shows the Project cost estimates used in establishing the rates in this instant matter are different than

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the actual cost, the Board *DIRECTS* Petitioner to provide a detailed reconciliation to all parties in this proceeding. Any differences will be adjudicated in the Company's next base rate case. The Company has submitted tariffs to reflect the forgoing. They have been reviewed and are acceptable. Consequently, the Board *ADOPTS* the Company's tariff effective for service rendered on and after the in-service date of the Project as certified by the Company. DATED: April 1, 1996

While I am in general agreement with the majority in all other respect and on all other issues, including but not limited to the Company's revenue requirement, rate base, rate of return, statewide rate equalization, and allocations, I reluctantly dissent from the majority decision in this matter because I believe that the rates of the Manasquan Customers' Group should be reduced by 22.97%, rather than the 11.5% adopted by the majority. There is no disagreement among the parties that the Manasquan Customers' Group is contributing revenues well in excess of the Company's cost to service, and I believe that fairness and sound principles of ratemaking require a reduction in the rates of the Manasquan Customers' group to reflect cost of service at this time. CARMEN J. ARMENTI COMMISSIONER

New Jersey, American Water Company Base Rate Case

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FOOTNOTES

FN1 Exceptions and Replies to Exceptions of Staff, Ratepayer Advocate, Company, Bulk Purchasers Coalition and the Manasquan Customers' Group shall be referred to respectively by the following abbreviations: Se and Sre, RAe and RAre, Ce and Cre, BPCe and BPCre, and MCGe and MCGre.

FN2 Initial Briefs and Reply Briefs of Staff, Ratepayer Advocate, Company, Bulk Purchasers Coalition and the Manasquan Customers' Group shall be referred to respectively by the following abbreviations: Sb and Srb, Rb and Rrb, Cb and Crb, BPCb and BPCrb, and MCGb and MCGrb.

END OF DOCUMENT

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EXHIBIT
A-48
ADMITTED

Arizona American Water actions through May 26, 2010 to have a dialogue with customers and key officials and to create opportunities for customers to provide feedback on rate and system consolidation

A. The Company attended meetings with the following public entities. The meetings were advertised and open to the public and the Company gave presentations / briefings on rate consolidation.

District	Date / Location	Materials Provided	Hosting Entity / Attendees
Sun City West	3-08-10 PORA Office	Fact Sheet[1]	PORA Board Members
Sun City West	3-31-10 PORA Office	Fact Sheet	PORA Water subcommittee,Public
Sun City West	4-28-10 PORA Office	Fact Sheet	PORA Water subcommittee, Public
Paradise Valley	3-03-10 PV Town Hall	Fact Sheet / Excerpts	Town Council, public
Paradise Valley	4-14-10 PV Town Hall	Update on Consolidation	Town Council, Public
Tubac	3-22-10 Santa Cruz Valley Council	Fact Sheet	Citizens Council, Public
Anthem	3-24-10 Anthem Com Council	Fact Sheet	Anthem Council, Public
Havasu	4-10-10 Desert Hills Comm. Assoc.	Fact Sheet[2]	Association,Public
Youngtown	4-12-20 Youngtown Council Meeting	Fact Sheet	Town Council, Public

Note: The Company requested to participate in a joint meeting with the Sun City Tax Payers Association, Sun City Home Owners Association (SCHOA), Sun City Recreation Centers, and Sun City West Property Owners and Residents Association (PORA) which was scheduled for March 12, 2010, but the group rejected our participation in the meeting, subsequently cancelled the meeting, and it was not rescheduled. The group was provided copies of the rate consolidation fact sheet. The Company is still willing and interested to meet with this group.

B. Company met with Arizona Corporation Commission Staff at ACC on Friday December 11, 2009 to discuss a way forward on community outreach on rate consolidation and shared the consolidation fact sheet.

C. Company hosted rate consolidation training and workshop on February 10, 2010.

All interveners to the consolidation matter were invited. The half-day meeting was attended by representatives of nearly every intervener. During the meeting, the Company presented and explained the rate consolidation model it developed, answered questions about the model, and invited discussion on rate consolidation in general. Copies of the model were provided to all interveners. Attached is the attendee sign-in sheet from the workshop.

D. Company held Community Open Houses at its facilities on rates, rate consolidation, water quality, water conservation, and other issues of interest to our customers.

- Agua Fria District - Saturday, January 9th, 2010
- Sun City/Sun City West - Thursday, January 14th, 2010
- Anthem - February 20th, 2010
- Paradise Valley / Scottsdale- Saturday May 22nd, 2010.

The Rate Consolidation Fact Sheet was provided at all open houses and was enlarged and featured at three open houses. Company representatives were available to discuss rate consolidation.

Information and Consolidation Fact Sheet provided to reporters:

- Daily News Sun Reporters/ Sun City & Sun City West: Erin Turner and Jeff Dempsey
- Arizona Republic Reporter/ Covers Anthem: Betty Reid

[1] Attached is the Rate Consolidation Fact Sheet.
[2] Distributed by Desert Hills Council President, Company not in attendance.

- Paradise Valley / Scottsdale Independent Editor Zach Collick & Dan Quigley
- Tubac - Nogales International / Green Valley News Reporter Kathleen Vandervoet
- Mohave Daily News Reporter Heather Smathers

- Arizona American Water first provided rate consolidation information at previously scheduled meetings on other topics to:

    - Anthem Community Council Water Subcommittee Meeting November 5,2009
    - Sun City HOA (SCHOA) meeting and information for newsletter November 18, 2009
    - Anthem Community Council Presentation on December 15, 2009
    - Paradise Valley Water Committee on December 2, 2009 and January 6, 2009

- Meetings were held with State representatives to brief them on rate consolidation:

    - Senator Bob Burns (District 9) 4-1-10
    - Representative Rick Murphy (District 9) 4-1-10
    - Senator David Braswell (District 6) 4-12-10
    - Representative Sam Crump (District 6) 8-26-09
    - Senator Pamela Gorman (District 6) 10-27-09
    - Representative Carl Seel (District 6) 12-01-09

- The media was in attendance at most public meetings which usually resulted in a written news story.

- Company used other community opportunities to share information on rate consolidation and answer customer questions:

    - Bullhead City Health Fair 10-23/10-25-09
    - Sun City West Health Fair 10-1-09
    - Sun City West Fire Days 10-05-09
    - Youngtown Days 10-10-09
    - Anthem Autumn Days 10-25-09
    - Sun City West Family Fair 10-25-09

- The Commission's required public notice on rate consolidation was mailed to each customer, in all districts.

- Rate Consolidation Fact Sheet is posted to Arizona American Water's website and passed out at most all events.

- Dedicated email address (azrates@amwater.com) disseminated and used to answer questions from customers.

- Direct phone numbers for both Rates Director Thomas Broderick (623) 445-2458 and External Affairs Manager Joni McGlothlin (623) 445-2458 were provided to the public. External Affairs Manager phone is forwarded to her cell when out and also listed on our website www.azamwater.com.

- Company employees received many e-mails and telephone calls directly from customers, especially Sun City, and responded to many of them individually.

WATER & WASTEWATER RATE CONSOLIDATION

ARIZONA
AMERICAN WATER

Q. What is water and wastewater rate consolidation?

A. Currently, Arizona American Water's rates are unique for each of its geographic districts as a result of district specific rate cases before the Arizona Corporation Commission ("ACC"). The existing rates reflect the differing cost to serve each geographic area. Rate consolidation is the process of averaging the differing rates for each district into a single rate for comparable customers (i.e., residential customers). Therefore, instead of charging a different rate to customers in, for example, Tubac, Bullhead City and Sun City, those customers would all pay the same rate for the same water usage.

Q. When will the ACC evaluate rate consolidation for Arizona American Water?

A. The ACC ordered its Staff prepare and submit a rate consolidation proposal in early 2010. Arizona American Water will likewise file a proposal in response to the Arizona Corporation Commission staff's proposal. If a consolidation proposal is ultimately approved by the ACC, rates may be consolidated as soon as 2011.

Q. Does rate consolidation already occur in Arizona?

A. The gas, electric, and telephone rates for Arizona's major utilities are already consolidated across large geographic areas. The U.S. Postal Service's rate are uniform across the nation. Such consolidation is now non-controversial and widely accepted as benefiting customers.

APS' electricity rates are applicable state-wide, despite the fact that there are significant differences in local cost of service to customers in Phoenix versus customers, for example, in Flagstaff. There are also sections of APS' service territory which are not contiguous (e.g., Yuma).

Q. But aren't gas and electricity different from water because they distribute a common source of energy and are interconnected?

A. Arizona American Water's source of water is increasingly from the Colorado River. It is now a sole or partial source of water for our Bullhead City, Havasu, Agua Fria, Anthem, Paradise Valley, Sun City and Sun City West districts. This common source of water is similar to the common source of energy used by gas and electricity utilities.

Q. In what situations would rate consolidation positively impact customers of Arizona American Water?

A. In the long-term, rate consolidation would help ease the rate increase burden of building new or replacement infrastructure in your district, especially in an era of increasingly strict water quality standards issued by the EPA pursuant to the Safe Drinking Water Act. Consolidation spreads infrastructure costs over all customers. All districts will eventually benefit even if some districts benefit more or less initially in the transition.

Q. How would rate consolidation benefit Arizona American Water?

A. Rate consolidation would simplify and improve communications with customers about rates, rate cases and rate increases. It would also reduce administrative costs, including rate case expenses for both Arizona American Water and the ACC. Arizona American Water already operates as a single company.

Q. Would consolidation be good for the state of Arizona?

A. Consolidation promotes public health and safety for small water systems by eliminating discrimination on the basis of the size or rural location of a community. It also promotes positive economic development in Arizona.

Consolidation helps small systems become more reliable by integrating them into larger systems.

Have an opinion or question or want more information?

We encourage you to share your thoughts with us or ask questions by e-mailing azrates@amwater.com (subject line "rate consolidation"). You may also contact Joni McGlothlin, Manager, External Affairs at (623) 445-2456 or Tom Broderick, Director, Rates & Regulation at (623)-445-2458.

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Training and Development of Rate Consolidation Scenarios
February 10, 2010 – 8:30 am to 12:00 pm

SIGN IN SHEET

Anne Randall Stewart	
✓Connie Heppenstall	present
Dan Neidlinger	
Desi Howe	present
Doyle Dickson	Doyle Dickson
Jeff Michlik	Jeffrey M Michlik
Jessica Marlow	Jessica Marlow
John Thornton	John Thornton
Judy Dworkin	Judith M Dworkin
Larry Robertson, Jr.	Larry Robertson Jr
Larry Woods	
Lou Sneiderman	
Maher Hazine	
Marv Worthen	Marv Worthen
Mike Hallam	
Nancy Scott	
Noel Kasper	
Phil Cook	Phil Cook
Robert L. Jones	
Robert Metli	
Roger Willis	

✓ Tim Coley	present
W.R. Hansen	W.R. Hansen
Willem Tijmann	Willem Tijmann
Bill Vann	Bill Vann
Louis Vann	Louis Vann

EXHIBIT
A-49
ADMITTED

ANTHEM COMMUNITY COUNCIL'S RESPONSES TO
ARIZONA-AMERICAN WATER COMPANY'S SECOND SET OF DATA REQUESTS
Docket Nos. W-01303A-09-0343 and SW-01303A-09-0343
April 9, 2010

AZW 2-1 Concerning the Staff recommendation to base wastewater rates on winter water usage, please respond to the following questions:

a. Do any of the Anthem community's rules and regulations, including but not limited to, those of its home owner associations, require residents or other entities to maintain lawns during the winter months? Yes.

b. If the response to (a) is yes:

(i) please provide the specific rules and regulations that require winter lawns (including overseeding).

(ii) are those rules and regulations still in effect?

(iii) is there an effort or consideration to eliminate such requirements?

c. Did all entities/individuals in Anthem maintain required winter lawns in the 2009/2010 winter months?

d. Is painting of lawn areas green permitted? If so, when approximately did that practice begin? If so, which entities/individuals have painted its/their lawns during the winter months?

RESPONSE: a. Yes.

b. If the response to (a) is yes:

(i) Attached are the Design Guidelines for all three Homeowners Associations – Parkside, Country Club, and Village. Please reference page 13 of the Country Club Design Guidelines and page 17 of the Parkside Design Guidelines. There are also design guidelines for worship, commercial, and retail centers.

(ii) Yes.

(iii) No. However, exceptions have been made as follows:

Country Club Notes: During 2009, the Country Club started to approve the use of artificial turf.

Parkside Notes: The Anthem Parkside Residential Design Guidelines do require homeowners to overseed for winter lawns as stated on page 17, section C paragraph 1. (If a warm season grass that goes dormant in winter is used, overseeding with rye is required). For the winter of 2009 the Parkside Board of Directors approved taking one year off for overseeding Parkside pocket parks as well as allowing the residents the option to do the same only for this one winter to allow grass areas to get healthier. With this one exception, the overseeding requirement is still in effect.

Anthem Community Council: A year ago the Council did not overseed the sports fields; however, the community was not supportive of the concept and therefore it is unlikely to be approved again in the future. At the time it was not a budget move; the Council let the turf go dormant to improve the health of the summer turf. This last winter the Council did overseed Council property. The Council has winter rye grass from September 15 through about the end of April to mid May, so it has winter turf for 6 to 7 months and bermuda turf for 5 to 6 months. The Council may have the opportunity to drop the summer turf in favor of the winter rye to coincide with the times that our facilities are used the most.

c. It is the responsibility of HOA Property Maintenance staff to enforce this requirement in the residential areas. Exceptions are noted above.

d. Painting of lawn areas green is not allowed.

DESIGN GUIDELINES

FOR
THE VILLAGE AT ANTHEM CONDOMINIUM

OCTOBER 1, 2004

Every owner of a Unit within The Village at Anthem Condominium is a member of The Village at Anthem Council of Co-Owners (the "Council"), the entity responsible for the management of all Common Elements as well as administration of the affairs of the community. The Council is created by the recording of the Declaration of Covenants, Conditions, and Restrictions and Easements for the Village at Anthem Condominium (the "CC&RS"). Capitalized terms not specifically defined herein shall have the meanings given to such terms in the CC&Rs. The CC&Rs set forth procedures, rules, and regulations that govern the community. The Design Guidelines and Rules and Regulations are an extension of the CC&Rs and are designed to be used in harmony.

The Board of Directors of the Council (the "Board") is charged with the responsibility for overseeing the business of the Council and has a wide range of powers. The Design Review Committee (the "Committee") is established by the Board to review all improvements within the community, including new construction and modifications to existing properties.

The Design Guidelines ("Guidelines"), as set forth in this document, shall interpret and implement procedures for the Committee's review and standards, including, but not limited to, architectural design, placement of buildings, landscaping, plant selection, color schemes, exterior finish and material, signage, and wall design. The Guidelines are intended to enhance property values and the high standards of development that exist within The Village at Anthem. Unless specifically identified as not requiring submittal for approval within these Guidelines, prior approval from the Committee is required for all changes, alterations, or additions to a lot or a Unit.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OR INSTALLATION, ALL PLANS MUST BE SUBMITTED, IF REQUIRED, TO THE COMMITTEE. APPROVAL TO PROCEED SHALL BE REQUIRED IN WRITING FROM THE COMMITTEE. FOLLOWING THESE GUIDELINES DOES NOT ELIMINATE THE NEED FOR SUBMISSION OF PLANS (UNLESS SPECIFICALLY NOTED).

APPLICATION PROCEDURE

Submittal
Application and plans (which will be kept on file with the Council) should be mailed to:

THE VILLAGE AT ANTHEM CONDOMINIUM
3701 W. Anthem Way
Anthem, AZ 85086
(623) 742-6020 / Fax (623) 742-6170

The following information should be included with the submittal:

1. **Application Form – Design Review Form:** A completed application form is attached (copies may be obtained from the management office).
2. **Elevation Plans:** Plans showing finished appearance of improvement in relation to existing dwelling.
3. **Specifications:** Detailed description of materials to be used and color samples, and dimensions must be submitted.
4. **Photograph:** If submittal is for an existing structure or improvement, a photograph of the structure or improvement must accompany the submittal application.

It is the owner's responsibility to ensure that all buildings, structures and other improvements erected within The Village at Anthem, and the use and appearance of all land within The Village at Anthem comply with all applicable City, State, County and Federal requirements as well as the Declaration for Anthem, the Declaration for Anthem Parkside, and these Guidelines. The Committee, the management company and the Council assume no responsibility for obtaining these reviews and approvals.

REVIEW: APPROVAL AND/OR DENIAL

The Committee shall have **forty-five (45) days** after submittal of plans to approve or deny plans. No verbal approvals/denials will be given by the community manager or the management company. All decisions will be mailed via US Mail.

Review and approval or disapproval will include, but is not limited to, consideration of material, quality of workmanship, colors, and consistency with the external design and color of existing structures on the lots. The location of the improvement with respect to topography and finished grade elevation is also considered.

Neither the Committee, nor the Board, nor the Declarant shall have any liability in connection with or related to approved plans, specifications, or improvements. The approval of the plans does not mean that judgment is passed on the structural soundness of the improvement nor its effect upon existing or future drainage. The review of the plans is for aesthetic purposes only.

Appeal

Any appeal of the Committee's decision must be submitted in writing, within thirty (30) days of the mailing date of the Committee decision to:

THE VILLAGE AT ANTHEM CONDOMINIUM
3701 W. Anthem Way
Anthem, AZ 85086
(623) 742-6020 / Fax (623) 742-6170

THESE RULES MAY BE AMENDED FROM TIME TO TIME BY A MAJORITY VOTE OF THE BOARD.

DESIGN GUIDELINES

ANTENNAS
No antenna or other device for the transmission or reception of television or radio signals or any other form of electromagnetic radiation (including satellite or microwave dishes) may be erected, used or maintained at any Unit or Limited Common Element without the prior written approval of the Committee. The location of any such antenna or other device shall be governed by Section 207 of the Telecommunications Act of 1996; provided, however, that in all instances, the placement of such devices, if approved, shall be in the least visible and conspicuous manner possible without interfering with the viewer's ability to receive signals.

AWNINGS
The Committee must approve all awnings. Only specific designs are permitted. Awnings are only permitted to be installed on the side and/or rear of the home. All awning submittals must include a drawing/picture with the location of the proposed awning installation. A sample of the material to be used, along with the color and design of the proposed awning is required. Owner is responsible for maintenance and repair of awnings. The Council retains the right to determine when an awning must be repaired and or replaced due to weathering, fading, tearing, ripping, etc.

BASKETBALL GOALS
Due to the nature of the community, basketball goals are not allowed.

BICYCLES
Bicycles must be stored inside home or in parking garage.

CLOTHESLINES
Clotheslines are not permitted.

CONSTRUCTION
Due to the close proximity of neighbors and in consideration of neighbors, all construction by owners must be completed between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday only. Permit for approved modification is required. .

AMERICAN FLAG
No freestanding flagpoles are allowed. Maximum size of the flag shall be three feet by five feet (3' x 5'). Wall mounted flagpoles shall be a maximum of five feet (5') long with attaching brackets painted to match the structure to which they are attached. Only one (1) pole-mounted flag will be permitted per residence or lot. All poles and flags must be maintained in excellent condition according to The United States Flag Code, Title 4 U.S.C. §§ 4-10. It will be the responsibility of the owner or resident of the lot on which the flag is displayed to do so with proper respect and flag etiquette.

SEASONAL AND DECORATIVE FLAGS
Seasonal and decorative flags that are to be mounted on a Unit require Committee approval. Seasonal flags must be removed within thirty (30) days after the date of the holiday to which the flag pertains. Flags must be maintained in good condition at all times. Flags that are torn, ripped, faded, etc., are subject to fines and removal.

HOLIDAY AND SEASONAL DECORATIONS
Holiday seasonal decorative lights may be displayed between November 15 and January 15 Seasonal decorations may be installed thirty (30) days prior to the holiday and must be removed within fifteen (15) days after the holiday.

DRAINAGE
No owner or resident shall interfere with or obstruct the drainage pattern over his Unit or the Common Elements as that pattern may be established or altered by Declarant.

EXTERIOR MAINTENANCE
Owners are responsible for contacting the property management company for preventative maintenance to the exterior of the Units. If the owner neglects his or her responsibilities for maintaining their property, they will be subject to repairing the damage at their expense. Contact the property management company immediately for any repairs to the roof upon noticing a leak. It is up to the owner to periodically inspect the exterior of their Unit for damages and to contact the management company so that the owner will not be held responsible for the repairs. The Council is not responsible for exterior window cleaning, concrete or asphalt driveway cleaning, dusting of buildings or patios.

EXTERIOR CHANGES
All proposed exterior changes to any Unit must be submitted to the Committee for approval.

FENCES AND WALLS INCLUDING DECORATIVE WALLS
No modification of fences or walls is allowed, including decorative walls.

HVAC INCLUDING EVAPORATIVE COOLERS
Except as initially installed by the Declarant, no heating, air conditioning or evaporative cooling unit shall be placed, installed, constructed or maintained upon any lot without the prior written approval of the Committee. All units shall be ground mounted, located within the perimeter of the rear yard and screened or concealed from view of all neighboring property. No window units are allowed. The Council is not responsible for interior filter replacement or duct cleaning within a Unit.

INTERIOR CHANGES
No interior structural changes whatsoever shall be commenced, erected, maintained, made or done without the prior written approval of the Committee.

LIGHTING
Lighting shall not be placed upon any Unit or Limited Common Element without Committee approval. The Committee must approve all exterior lighting changes.

OUTSIDE SPEAKERS & AMPLIFIERS
No radio, stereo or other broadcast unit of any kind and no amplifiers or loudspeakers of any kind shall be placed, allowed or maintained outside, or be directed to the outside of a Unit without prior written approval and authorization of the Committee.

PAINT COLORS: EXTERIOR
No exterior painting is allowed that would alter the original painting theme without Committee approval.

PATIO COVERS

All patio covers not installed by the Declarant must be submitted to the Committee prior to installation. Care should be taken to insure materials are consistent with the building design.

PRIVATE COURTYARDS & LANDSCAPING

The owner must keep his/her private courtyard clean and free of litter and animal waste. Clothes, bath towels, bedding, rugs, blankets, towels, bathing suits or other personal effects may no be draped over exterior walls, railings or appurtenances or suspended by any other supporting elements. Landscaping plans for any private courtyard must be submitted and approved by the Committee prior to installation.

PATIOS, BALCONIES, TERRACES, DECKS

Nothing shall be placed or installed on or affixed to any patio, terrace, deck or balcony without the approval of the Committee, including but not limited to patio furniture, statues, fountains, planters, swings, benches, and stools. All patio furniture shall be of commercial grade quality and approved by the Committee prior to placement. No plastic furniture is allowed.

ROOFS

Nothing (including solar panels, air conditioning or hearing units, television antennas, satellite dishes or other apparatus, structure, or object) shall be placed on the roof of a Unit or building without the prior written consent of the Committee.

SCREEN DOORS

Any front door screen door must have architectural approval prior to installation. There are specific RETRACTABLE/INVISIBLE designs allowed in The Village at Anthem. Doors must be kept clean and in proper repair. Silver colored aluminum screen/security doors and/or wire screen mesh doors are strictly prohibited on front doors.

SIGNS

No signs whatsoever (including commercial, for sale, for rent, and similar signs) are allowed to be erected or maintained on or around a Unit or in the window of a Unit or otherwise so as to be visible from neighbors except signs required by legal proceedings or as are provided by the Council. If any signs are erected or placed in the Common Elements, the management company will be instructed to remove the sign, and the owner will be billed for the removal cost.

SOLAR PANELS

Solar panels cannot be placed on the roof without prior written consent of the Committee. Panels must be flush mounted if visible by neighbors.

STORAGE

Courtyard storage is not to be visible from other Units or the street. Storage includes storage sheds of any type, boxes, shelves, ladders, building materials, miscellaneous parts of any kind, refrigerators, etc. All boxes, cycles, large toys and other similar items must be stored in the Unit or in the garage, so long as storage does no prevent the garage parking space from being used to park permitted vehicles under the CC&Rs.

WINDOW TREATMENTS

Windows are to have permanent draperies or suitable window treatments installed on all windows within thirty (30) days of ownership of a Unit. In no event shall windows be covered with paper, aluminum foil, bed sheets or any other materials or coverings not specifically intended for such purpose. No reflective material may be placed (whether inside or outside) on any windows within The Village at Anthem unless it has been approved by the Committee prior to installation. No metal or rigid plastic awnings shall be installed on or attached to the outside of any building unless it has been approved by the Committee prior to installation.

THE VILLAGE AT ANTHEM CONDOMINIUM
DESIGN REVIEW FORM

Please mail or fax to:
THE VILLAGE AT ANTHEM CONDOMINIUM
c/o Associated Asset Management
6701 W. Anthem Way
Anthem, AZ 85086
Phone: (623) 742-6020 FAX: (623) 742-6170

Name: _____ Date: _____

Address: _____ Daytime Phone: _____

_____ Unit #: _____

Requesting Approval of: _____

_____

_____

Work to be performed by: _____

_____

Type of Material (attach samples/pictures/brochures): _____

_____

_____

Color to be used (attach samples/pictures/brochures): _____

_____

SUBMITTAL MUST INCLUDE A PLOT PLAN INDICATING LOCATION OF REQUEST AND INCLUDE ALL APPLICABLE MEASUREMENTS AND DIMENSIONS.

INCOMPLETE SUBMITTALS WILL BE DENIED.

I agree to comply with all applicable city and state laws, and to obtain all necessary permits. I also agree not to begin work until I have been notified in writing of the Committee's decision and to maintain all improvements to their original condition. Committee must review all submittals within 45 days. All work will be completed within 120 days from day of approval.

Owner's Signature _____ Date _____

ACCCA

A DEL WEBB COMMUNITY

RESIDENTIAL DESIGN GUIDELINES

February 3, 2009

ANTHEM COUNTRY CLUB

RESIDENTIAL DESIGN GUIDELINES

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PLEASE SEE BACK OF DESIGN GUIDELINES FOR UPDATED RESOLUTIONS

APPENDIX B
Native & Near-Native Plant List For Anthem
(Alpha by Common Name)

Key to Symbols

A	Accent Plant
C	Cactus
F	Flower
Gc	Groundcover
S	Shrub
Sc	Succulent (other than cacti)
T	Tree
V	Vine

NOTE: Only Anthem approved plants allowed on residence property. Including potted plants.

Rear Yard Plant List Only (attached)

Prohibited Plant List (attached)

Category	Botanical Name	Common Name
T	Acacia berlandieri	Acacia
F	Arctotis spp.	African Daisy
F	Dimorphotheca spp.	African Daisy
F	Anisodontea hypomandrum	African Mallow
S	Berberis trifoliolota	Agarita
A, S	Agave chrysantha	Agave
A	Agave speciesss	Agave (all species)
F	Hesperocallis undulata	Ajo Lily
Sc	Aloe	Aloe - All Species
S	Agave schottii	Amole
F	Amsonia palmeri	Amsonia
S	Bauhinia congesta	Anacacho Orchid Tree
S	Lycium andersonii	Anderson Lycium
F	Hymenoxys acaulis	Angelita daisy
S	Fallugia paradoxa	Apache Plume
T	Fraxinus velutina var. glabra	Arizona Ash
F	Gaillardia arizonica	Arizona Blanketflower
F	Evolvulus arizonicus	Arizona Blue Eyes
Gc	Vitis arizonica	Arizona Grape
F	Lupinus arizonicus	Arizona Lupine
F	Kallstroemia grandiflora	Arizona Poppy
T, S	Vauquelinia californica	Arizona Rosewood
S	Sophora arizonica	Arizona Sophora
T	Platanus racemosa var. wrightii	Arizona Sycamore
T	Juglans major	Arizona Walnut
F	Lupinus succulentus	Arroyo Lupine
Gc	Muhlenbergia lindheimeri	Autumn Glow
S, Gc	Salvia greggii	Autumn Sage
S	Calliandra californica	Baja Fairy Duster

S	Ruellia peninsularis	Baja Ruellia
Gc	Muhlenbergia dumosa	Bamboo Muhly
S	Yucca baccata	Banana Yucca
F	Delphinium scaposum	Barestem Larkspur
A, C	Ferocactus acanthodes *	Barrel Cactus
F	Centaurea rothrockii	Basket Flower
F	Cuphea llavea	Bat-faced Cuphea
S	Cuphea llavea	Bat-faced Cuphea
S	Yucca rostrata	Beaked Yucca
A	Nolina bigelovii	Bear Grass
A, S	Nolina microcarpa	Bear Grass
F	Penstemon pseudospectabilis	Beard Tongue
F	Penstemon subulatus	Beard Tongue
F	Penstemon superbus	Beardtongue
A, C	Opuntia basilaris	Beaver Tail Prickly Pear
S	Bebbia juncea *	Bebbia
F	Monarda austromontana	Bee Balm
A, C	Coryphantha vivipara	Beehive Cactus
F	Monoptilon belliodes	Belly Flower
Gc	Hillaria rigida	Big Galleta
F	Mimulus bigelovii	Bigelow's Monkeyflower
F	Oenothera deltoides	Birdcage Evening Primrose
S	Condalia globosa	Bitter Condalia
S	Dalea frutescens	Black Dalea ("Sierra Negra")
S	Acacia rigidula	Blackbrush Acacia
Gc	Melampodium leucanthum	Blackfoot Daisy
F	Mentzelia spp.	Blazing Star
F	Machaeranthera canescens	Blue Aster
F	Linum lewisii	Blue Flax
Gc	Bouteloua gracilis	Blue Grama
T	Cercidium floridum *	Blue Palo Verde
S	Leucophyllum zygophyllum	Blue Ranger ("Cimarron")
S	Salvia chamaedryoides	Blue Sage
F	Dichelostemma pulchellum	Bluedicks
V	Bougainvillea	Bougainvillea - All Species
S	Brickellia californicum *	Bricklebush
S	Ruellia brittoniana	British Ruellia - pink & purple
S	Encelia farinosa *	Brittle Bush
A, C	Opuntia acanthocarpa *	Buckhorn Cholla
Sc	Bulbine frutescens	Bulbine
Gc	Scirpus spp, (Native only)	Bulrush
Gc	Aplopappus tenuisectus	Burro weed
S	Hymenoclea monogyra *	Burrobrush
S	Teucrium fruticans	Bush Germander
Gc	Muhlenbergia porteri	Bush Muhly
Gc	Eriogonum fasciculatum var. poliofoium *	California Buckwheat
S, Gc	Salvia clevelandii	California Chaparral
F	Eschscholtzia californica	California Poppy

1, 2S	Ambrosia ambrosioides *	Canyon Ragweed
S	Mimulus cardinalis	Cardinal Monkey Flower
S	Carlowrightia arizonica	Carlowrightia
T	Caesalpina cacalaco	Cascalote
A, Gc	Typha spp.	Cat Tail
S	Mimosa biuncifera	Catclaw, Wait-a-Minute Bush
V	Macfadyena unguis - cati	Cat's Claw
A, Sc	Agave americana	Century Plant
S	Hymenoclea salsola *	Cheesebrush
S	Salvia coccinea	Cherry-red Save
S	Salvia columbariae	Chia
S	Leucophyllum laevigatum	Chihuahuan Sage
T	Prosopis chilensis	Chilean Mesquite
T	Catalpax tashkentensis	Chilitapa
F	Pectis papposa	Chinch Weed
F	Collinsia heterophylla	Chinese-houses
F	Berlandiera lyrata	Chocolate Flower
A, C	Opuntia leptocaulis *	Christmas Cholla
S	Justicia californica	Chuparosa
Gc	Clematis ligusticifolia *	Clematis
S	Fendlera rupicola	Cliff Fendlerbush
A	Hesperaloe funifera	Coahuilan Hesperaloe
A, C	Echinocereus engelmannii *	Common Hedgehog Cactus, Strawberry Cactus
V	Campsis radicans	Common Trumpet Creeper
S	Coursetia glandulosa	Coursetia
Gc	Bacchaeis Centennial	Coyote Bush
F	Platystemon californicus	Cream Cups
S	Larrea tridentata *	Creosote Bush
T	Canotia halocantha	Crucifixion Thorn
T	Holacantha emoryi	Crucifixion Thorn
S	Chrysactinia mexicana	Damianita
G	Muhlenbergia rigens	Deer Grass
F	Phacelia campanularia	Desert Bluebell
S	Eriogonum wrightii	Desert Buckwheat
S	Cassia nemophila	Desert cassia
F	Coreopsis bigelovii	Desert Coreopsis
F	Bahia absinthifolia	Desert Daisy
F	Mirabilis multiflora	Desert Four O'Clock
V, I	Cissus incisa (C. Trifoliata)	Desert Grape Ivy
S	Anisacanthus thurberi	Desert Honeysuckle
S	Hyptis emoryi *	Desert Lavender
F	Lupinus sparsiflorus	Desert Lupine
Gc	Baileya multiradiata	Desert Marigold
F, Gc	Raileya multiradiata *	Desert Marigold
S	Asclepias subulata *	Desert Milkweed
T	Cercidium "Desert Museum"	Desert Museum Palo Verde
S	Forestiera neomexicana	Desert Olive
F	Gaura lindhermeri	Desert Orchid

S	Lotus rigidus	Desert Rock Pea
F	Cassia covesii *	Desert Senna
F	Senna covesii	Desert Senna
A	Dasylirion longissimum	Desert Spoon
S	Dasylirion wheeleri	Desert Spoon
F	Geraea canescens	Desert Sunflower
S, T	Chilopsis linearis *	Desert Willow
F	Zinnia acerosa	Desert Zinnia
F	Rafinesquia neomexicana	Desert-chicory
S	Atriplex hymenelytra	Desert-Holly
F	Proboscidea altheaefolia	Devil's Claw
F	Proboscidea parviflora	Devil's Claw
F	Dyssodia pentachaeta	Dyssodia
Gc	Muhlenbergia emersleyi	El Toro
F	Portulacaria afra	Elephants Food
S	Eremophila spp.	Emu Bush
A, C	Opuntia phaeacantha discata	Englemann Prickly Pear
F	Eupatorium greggii	Eupatorium
S	Euphorbia rigida	Euphorbia
F	Oenothera primiveris	Evening Primrose
F	Matthiola longipetala cv. 'Bicornis'	Evening Scented Stock
F	Helichrysum bracteatum	Everlasting Daisy
S	Calliandra peninsularis	Fairy Duster
S, F	Calliandra eriophylla *	Fairy Duster, False Mesquite
F	Clarkia amoena	Farewell-to-Spring
T, S	Lysiloma thornberi	Feather Bush
F	Penstemon Eatonii	Firecracker Penstemon
Gc	Penstemon eatonii	Firecracker Penstemon (Scarlet)
A, C	Ferocactus wislizeni *	Fishhook Barrel Cactus
A, C	Mammillaria microcarpa *	Fishhook Cactus
F	Nemophila maculata	Five Spot
Gc	Erioneuron pulchellum	Fluffgrass
S	Atriplex canescens	Four-wing Salt Bush
T	Populus fremontii	Freemont Cottonwood
Gc	Teucrium chamaedrys cv. 'Prostrata'	Germander
F	Mohavea confertiflora	Ghost Flower
S	Ambrosia Ambrosiodes	Giant Bursage
F	Gomphrena globosa	Globe Amaranth
F	Sphaeralcea ambigua *	Globe-Mallow
A, C	Echinocactus grusonii	Golden Barrel Cactus
F	Aquilegia chrysantha	Golden Columbine
F	Verbesina enceliodes	Golden Crown Beard
F	Viguiera tomentosa	Golden Eye
S	Viguiera deltoidea	Golden-eye
F	Lasthenia chrysostoma	Goldfield
S	Cassia goldmanii	Goldman=s Cassia
T	Salix goodingii	Gooding=s Willow

S	Zizyphus obtusifolia *	Graythorn
S	Encelia frutescens *	Green Brittlebush
S	Leucophyllum frutescens	Green Cloud
A	Dasylirion acrotriche	Green Desert Spoon
Gc	Santolina virens	Green Santolina
S	Convolvulus cneorum	Ground Morning Glory
S	Guaiacum coulteri	Guayacan
F	Camissonia cardiophylla	Heart-leaved Primrose
A, C	Echinocereus pectinatus	Hedgehog, Strawberry Cactus
F	Helipterum spp.	Helipterum
A, Sc	Agave murpheyi *	Hohokam Agave
T	Prosopis glandulosa var. glandulosa	Honey or Texas Mesquite
S	Dodonaea viscosa	Hop Bush
A, Sc	Agave huachuchensis	Huachuca Agave
S	Zauschneria californica	Hummingbird Bush
Sc	Aizoaceae spp.	Ice Plant Family
F	Gaillardia pulchella	Indian Blanket
S	Abutylon Palmerii	Indian Mallow
F	Castilleja chromosa	Indian Paintbrush
F	Castilleja lanata	Indian Paintbrush
F	Plantago spp.	Indian-wheat
S	Dalea pulchra	Indigo Bush
1, 2, 3S	Dalea wislizeni	Indigo Bush
T	Olneya tesota *	Ironwood, Tesota
S	Janusia gracilis *	Janusia
S	Simmondsia chinensis *	Jojoba, Goat Nut
S	Yucca brevifolia	Joshua Tree
A, C	Opuntia fulgida *	Jumping Cholla
F	Anigozanthos spp.	Kangaroo-paw
S	Ruellia brittoniana "dwarf"	Katie ruellia
S	Eysenhardtia polystacha	Kidneywood
V	Rosa banksiae	Lady Bank's Rose
Sc	Pedilanthus macrocarpus	Lady Slipper
Gc	Lantana	Lantana - All Species
F	Delphinium amabile	Larkspur
Gc	Santolia Chamae Cyparissw	Lavender Cotton
Gc	Santolina chamaecyparissus	Lavender Cotton
S	Acacia Craspedocarpa	Leather-Leaf Acacia
S	Leucophyllum	Leucophyllum - All Species
S	Tagetes lucida	Licorice Marigold
V	Mascagnia lilacina	Lilac Orchid Vine
S	Jatropha cardiophylla	Limberbush
F	Zinnia grandiflora	Little Golden Zinnia
S	Cordia parvifolia	Little Leaf Cordia
T	Cercidium microphyllum *	Littleleaf or Foothill Palo Verde
S	Rhus microphylla	Littleleaf Sumac
F	Lupinus densilorus	Lupine
F	Catharanthus roseus	Madagascar Periwinkle

Sc	Manfreda maculosa	Manfreda
F	Romneya coulteri	Matilija Poppy
S	Salvia farinacea	Mealy Cup Sage
S	Rhus choriophylla	Mearns Sumac
T,S	Acacia constricta	Mescat, Whitethorn Acacia
T	Prosopis juliflora var. velutina*	Mesquite
T	Prosopis alba	Mesquite
S	Caesalpinia mexicana	Mexican Bird of Paradise
S	Salvia leucantha	Mexican Bush Sage
T	Pithocellobium mexicanum	Mexican Ebony
T	Sambucus mexicana	Mexican Elderberry
Gc	Oenothera berlandieri	Mexican Evening Primrose
S	Anisacanthus quadrifidus	Mexican Flame
F	Eschschottzia mexicana	Mexican Golden Poppy
F	Ratibida columnaris	Mexican Hat, Coneflower
S	Justicia spicigera	Mexican Honeysuckle
S	Lippia (berlandieri)	Mexican Oregano
F	Tithonia rotundifolia	Mexican Sunflower
T	Ungnadia speciosa	Mexican-buckeye
Gc	Phoradendron californicum *	Mistletoe
F	Machaeranthera tortifolia	Mohave Aster
S	Ephedra nevadensis *	Mormon Tea
S	Ephedra trifurca	Mormon Tea
F	Ipomoea cristulata	Morning Glory
F	Ipomoea leptotoma	Morning Glory
Gc	Verbena tenera	Moss Verbena
Gc	Verbena tennuisecta	Moss Verbena
S	Tagetes lemmonii	Mount Lemmon Marigold
S	Dalea versicolor	Mountain Delight
T	Acacia Aneura	Mulga
S	Yucca augustifolia	Narrowleaf Yucca
G	Muhlenbergia rigida	Nashville
Gc	Verbena gooddingii	Native Verbena
T	Celtis reticulata (C.douglasii, C.tatl)	Netleaf or Western Hackberry
S	Artiplex torreyi	Nevada Saltbush
A, C	Cereus greggii	Night blooming cactus
A	Fouquieria splendens *	Ocotillo
T, S	Tecoma spp.	Orange Jubilee
F	Orthocarpus purpurascens	Owl's Clover
F	Euphorbia heterophylla	Painted Spurge
F	Ipomopsis longiflora	Pale Blue Trumpets
S	Agave palmeri	Palmer Agave
S	Amaranthus palmeri	Palmers Amaranth
F	Penstemon palmeri	Palmer's Penstemon
T	Acacia willardiana	Palo Blanco
T	Cercidium praecox	Palo Brea
S	Salazaria mexicana *	Paper-bag Bush
F	Psilostrophe cooperi	Paperdaisy

S	Agave parryi	Parry Agave
A	Nolina parryi	Parry's Beargrass
F	Penstemon parryi	Parry's Penstemon
A, C	Opuntia arbuscula *	Pencil Cholla
Sc	Yucca recurvifolia	Pendulous yucca
F	Penstemon cardinalis	Penstemon
F	Penstemon strictus	Penstemon
F	Penstemon	Penstemon - All Species
Gc	Verbena peruviana	Peruvian Verbena
A, C	Oelloydia sp.	Pineapple Cactus
F	Matricaria grandiflora	Pineapple Weed
S	Asclepias linaria	Pineleaf-Milkweed
S	Calliandra eriophylla	Pink Fairy Duster
V	Podranea ricasoliana	Pink Trumpet Vine
S	Punica granatum var.	Pomegranate
V	Solanum jasminoides	Potato Vine
Gc	Verbena rigida	Prairie Verbena
C	Opuntia sp.	Prickly Pear B all species
F	Argemone munita	Prickly Poppy
F	Eriastrum diffusum	Prickly Stars
F	Argenome platyceras	Prickly-Poppy
F	Aster Tanacetifolius	Purple Aster
F	Machaeranthera tanacetifolia	Purple Aster, Tahoka Daisy
F	Nama demissum	Purple Mat
F	Nama hispidum	Purple Mat
Gc	Aristida purpurea	Purple Three Awn
S	Pyracantha spp.	Pyracantha, Fire-thorn
S	Atriplex lentiformis	Quail Bush
V	Antigonon leptopus	Queens Wreath
S	Chrysothamnus nauseosus	Rabbit Brush
S	Krameria parviflora	Range Ratany
S	Berberis haematocarpa	Red Barberry
S	Caesalpinia pulcherrima	Red Bird of Paradise
F	Linum grandiflorum	Red Flax
S	Justicia candicans	Red Justicia
F	Stachys coccinea	Red Mint, Betony
Gc	Aristida purpurea	Red Three Awn
Gc	Muhlenbergia capillaris	Regal Mist
S	Leucophyllum langmaniae	Rio Bravo
F	Perityle emoryi	Rock Daisy
S	Cistus spp.	Rockrose
S	Ruellia californica	Ruellia
F	Datura wrightii	Sacred Datura
S	Artemisia spp.	Sagebrush
F	Oenothera stubbei	Saltillo Primrose
Gc	Sporobolus cryptandrus	Sand Dropseed
F	Abronia villosa	Sand-verbena
A, C	Opuntia santa-rita	Santa-rita Cactus
A, C	Carnegiea gigantea *	Saguaro

F	Penstemon barbatus	Scarlet Bugler
F	Phacelia spp.	Scorpion Weed
T	Prosopis pubescens	Screwbean Mesquite
S	Quercus turbinella	Scrub Oak
Gc	Carex spp. (Natives only)	Sedge
S	Baccharis glutinosa	Seep Willow
C	Lophocereus schottii	Senita
F	Papaver rhoeas	Shirley Poppy
F	Gilia leptantha	Showy Blue Gilia
F	Cassia wislizenii	Shrubby Cassia
Gc	Dyssodia acerosa	Shrubby Dogweed
Gc	Bouteloua curtipendula	Side Oats Grama
S	Dalea capitata	Sierra Gold
S	Leucophyllum revolutum	Sierra Magic Mix
S	Dalea lutea	Sierra Moonrise
S	Cassia phyllodenia	Silver leaf cassia
Gc	Bouteloua aristidoides	Six-week Grama
S	Rhus trilobata	Skunkbush
S	Gutierrezia sarothrae	Snakeweed
V	Maurandya antirrhiniflora	Snapdragon Vine
V	Maurandya wislizeni	Snapdragon Vine
S	Yucca elata	Soaptree Yucca
S	Solanum xanti	Solanum
F	Justicia sonorae	Sonoran Justicia
S	Sophora formosa	Sophora
T,S	Acacia greggii *	Southwestern Sweet Acacia, Catclaw Acacia
Sc	Yucca aloifolia	Spanish bayonet
S	Celtis pallida *	Spiny or Desert Hackberry
F	Erigeron divergens	Spreading Fleabane
A, C	Opuntia versicolor	Staghorn Cholla
S	Rhus ovata	Sugarbush
S	Abatilon palmeri	Superstition Mallow
T	Acacia smallii	Sweet Acacia
A, C	Opuntia bigelovii *	Teddy Bear Cholla
T	Pithocellobium pallens	Tenaza
T	Pithecellobium flexicaule	Texas Ebony
S	Sophora Secundiflora	Texas Mountain Laurel
S	Cordia boissieri	Texas Olive
F	Cirsium neomenicanum	Thistle
S	Yucca thompsoniana	Thompson Yucca
S	Senecio douglasii	Threadleaf Groundsel
F	Penstemon thurberi	Thurber's Penstemon
F	Layia platyglossa	Tidy Tips
F	Linaria spp.	Toadflax
Gc	Hilaria mutico *	Tobosa grass
C	Lophocereus schottii forma monstrosus	Totem Pole Cactus
S	Acacia redolens	Trailing Acacia ("Desert Carpet")

S	Dalea Greggii	Trailing Indigo Bush
Gc	Dalea greggii	Trailing Indigo/Trailing Smoke bush
F	Allionia incarnata	Trailing Windmills
S	Ambrosia deltoidea *	Triangle-leaf Bursage
S	Trixis californica *	Trixis
F	Oenothera caespitosa	Tufted, Fragrant, or White Evening Primrose
S	Thamnosma montana	Turpentine Broom
Gc	Aplopappus laridifolius	Turpentine Bush
S	Ericameria laricifolia *	Turpentine Bush
S	Ericameria linearifolia	Turpentine Bush
A, S	Agave genimiflora	Twin-flowered Agave
T	Acacia schaffneri	Twisted Acacia
S	Yucca rupicola	Twisted Yucca
F	Ursinia spp.	Ursinia
S	Mimosa dysocarpa	Velvet Pod Mimosa
S	Leucophyllum candidum	Violet Silverleaf ("Silver Cloud")
S	Leucophyllum candidum	Violet Silverleaf ("Thunder Cloud")
V	Clematis drummondii	Virgin's Bower
S	Euphorbia antisyphilitica	Wax Plant, Candelilla
S	Aloysia lycioides	White Brush
S	Ambrosia dumosa *	White Bursage
Gc	Zephyranthes candida	White Rain Lily
2, 3S	Krameria grayi *	White Ratany
F	Helianthus annuus	Wild Sunflower
V	Hardenbergia Comptoniana	Wild Wisteria
S	Lycium fremontii *	Wolfberry
F	Eriophyllum lanosum	Woolly Daisy
F	Eriophyllum wallacei	Woolly Daisy
S	Buddleya marrubifolia	Wooly Butterfly Bush
S	Aloysia wrightii	Wright=s Bee Bush
F	Penstemon wrightii	Wright's Penstemon
Gc	Glandularia wrightii	Wright-verbena
F	Machaeranthera gracilis	Yellow Aster
T, S	Tecoma stans	Yellow Bells
S	Caesalpinia gillesii	Yellow Bird of Paradise
F	Lesquerella gordonii	Yellow Blanket
Gc	Buline frutescens	Yellow Bulbine
F	Camissonia brevipes	Yellow Cups
A	Hesperaloe parviflora	Yellow Hesperaloe
S	Mimulus guttatus	Yellow Monkey Flower
V	Callaeum macroptera	Yellow Orchid Vine
V	Mascagnia macroptera	Yellow Orchid Vine
Gc	Zephyranthes sulphurea	Yellow Rain Lily
T	Salix taxifolia	Yew leaf Willow
V	Merremia aurea	Yuca
A	Yucca constricta	Yucca
A	Yucca pallida	Yucca

Anthem
Plants - Rear Yard Only

Category	Botanical Name		Common Name
A	Aptenia cordifolia	R	Hearts and Flowers
S	Caesalpina Pumila	R	Copperleaf Bird of Paradise
S	Dalea Formosa	R	Feather Dalea
S	Dicuptera Suberecta	R	Velvet Honeysuckle
A	Dietes Bicolor	R	Fortnight lily
A	Dietes Bicolor	R	Evergreen Iris
Gc	Drosanthemum sp.	R	Ice Plant
Gc	Euphorbia Macrocarpus	R	Candelilla
F	Gaura Lingheimer	R	Waud Flower
Gc	Gazania Pigens	R	Trailing Gazania
S	Jasminum mesnyi	R	Primrose Jasmine
F	Loropetalum Chinense	R	Razzleberry (Fringe Flower)
T	Lysiloma	R	Desert Fern
S	Nandina compactum	R	Heavenly Bamboo
V	Passiflora Alatocaerulea	R	Passion Vine
Sc	Pedilanthus Macrocarpus	R	Slipper Plant
S	Perovskia atriplicifolia cv 'Heavenly Blue'	R	Russian Sage
S	Plumbago Scandens	R	Summer Snow
F	Portulacaria afra	R	Elephant Food
S	Rhapiolepis indica	R	India Hawthorne
Gc	Rosmarimus officinalis	R	Rosemary
Gc	Rosmarinus officinalis cv 'Prostratus'	R	Prostrate Rosemary
Gc	Teucrium chamaedrys prostratum	R	Dwarf Germander
Gc	Wedelia trilobata	R	Yellow Dot

Prohibited Plant List - Anthem

Key to Symbols:

A	Accent Plant	S	Shrub
C	Cactus	Sc	Succulent (other than cacti)
F	Flower	T	Tree
Gc	Groundcover	V	Vine

Category	Botanical Name	Common Name
S	Baccharis sarothroides	Desert Broom
T	Citrus/Fruit trees	Citrus/Fruit trees, All species
T	Cupressus sempervirens	Italian Cypress
T, S	Eucalyptus sp.	Eucalyptus, All species
T	Ficus	Ficus, All Species
T	Jacaranda mimosifolia	Jacaranda
T, S	Juniperus sp.	Juniperus, All species
S	Malvaceae	Hibiscus
T, S	Nerium oleander	Nerium oleander, All species
T	Olea europa (with the exception of Swan Hill cultivar)	European Olive
T	Palms sp.	Palms, All Species
S	Pennisetum setaceum	Fountain Grass
T	Pinus spp. (including Pinus halepensis, Pinus eldarica, Pinus canariensis)	Pines (including Alleppo Pine, Eldarica Pine, and Canary Island Pine)
T, S	Tamarix spp.	Tamarisk, Salt Cedar Bottle Brush Little Johns

Note:

1. All plant material installed must be from Appendix B.

2. Prohibited plants are not permitted in pots.

I. INTRODUCTION

A. PHILOSOPHY

Anthem is planned as a self contained and self-sustaining community with diverse neighborhoods in several interconnected "villages" providing a broad spectrum of housing, commercial, and employment opportunities and a mix of income levels, lifestyles and living arrangements. In Anthem, Del Webb the (original builder) will be incorporating its many years of planning and development experience in applying new criteria to the development of this master planned community.

Anthem will develop over many years. Its development philosophy, goals and objectives have been crafted to guide development and design well into the future in a way that accommodates the full spectrum of community needs, including custom and conventional builders, future multi-family units, and all types of non-residential/commercial and employment activities. All participating builders are required to adhere to Anthem's philosophy of minimum visual impact and preservation and maintenance of the desert ecosystem.

These Design Guidelines provide an overall framework for 1) achieving visual harmony with the natural environment by striving for minimum visual impact of the buildings on the landscape; 2) enhancing harmony within the built environment by stimulating a natural, agreeable and appropriate diversity of style; 3) advancing biological harmony with the natural environment by integrating man and his needs into the existing desert ecosystem; and 4) establishing a review process appropriate for changes within the community.

MISSION STATEMENT

The mission of the original builder in development of Anthem is to create a sustainable community that accommodates its growth responsibly on social, economic and environmental levels; to operate on a set of shared values, engendering a pride of place and sense of heritage; to reduce the negative effects of development on the environment; to utilize a philosophy of minimum visual impact of the built environment on the Sonoran Desert; and to become a community that contributes positively to the region and exists in harmony with surrounding communities.

B. OVERVIEW OF GUIDELINES

The Anthem Country Club Residential Design Guidelines ("Design Guidelines") provides an overall framework for community development and progress in an orderly and cohesive manner, implementing planning and design concepts which are required by regulatory agencies and desirable to its residents. The Design Guidelines include minimum standards for the design, size, location, style, structure, materials and color of architectural improvements and landscaping, and relevant criteria for the construction or modification of all improvements made by any party other than the

Original Builder. They also establish a process for the judicious review of proposed improvements or alterations. However, the Design Guidelines are not the exclusive basis for decisions of the "Reviewer", and compliance with the Design Guidelines does not guarantee approval of any application.

The Design Guidelines have been prepared by the original builder and adopted by the Anthem Community Council (the "Council") for application throughout the Anthem residential community. The Anthem Country Club Community may be subject to additional guidelines, provided such additional guidelines may not be in derogation of these Design Guidelines. Such additional design guidelines may be promulgated in accordance with Article IV of the Declaration of Covenants, Conditions, and Restrictions for Anthem Country Club ("Anthem Country Club Declaration"). Any reference to the "Declaration" in these Design Guidelines shall refer to the Anthem Country Club Declaration. All capitalized terms shall be given the meanings ascribed to them below or in the Declaration of Covenants and Easements for Anthem ("Community Covenant"), the Declaration, or any supplements or amendments thereto, unless the context requires otherwise. The appropriate Reviewer will administer the Design Guidelines pursuant to the Declaration. The Reviewer of modifications within the Anthem Country Club Community shall be the "Lifestyle Enhancement Committee." (L.E.C.).

In the event of conflict between these Design Guidelines, the Declaration, any other declaration of covenants or restrictions, and any governmental ordinance, building code or regulation, the more restrictive standard shall prevail.

MODIFICATIONS

No exterior construction, alteration, addition, or renovation to any structure or improvements on a Lot, *no modifications* to *patios, and no landscaping, walls or fences* will be allowed on any Lot, without application to, and written approval by, the Reviewer. Each Owner is responsible for removing or otherwise curing, at its expense, non-complying and/or unapproved improvements.

1. Architectural Character

   a. The architectural design of all additions, alterations, and renovations to the exterior of any Dwelling Unit shall conform to the design of the original home in style, detailing, materials, and color.

   b. The height of any addition to an existing Dwelling Unit shall not be higher than the original roof line.

   c. All additions to Dwelling Units shall be built within the setback lines originally established for Anthem or as changed by the original builder with the requisite

approval of Maricopa County or the City of Phoenix, regardless of more lenient requirements of any local governmental authority.

d. All materials used in the maintenance, repair, additions and alterations of any structure or improvement subject to review hereunder shall match those used in the initial construction of the improvement as to color, composition, type, and method of attachment. The Reviewer may allow substitute materials if it deems such materials to be compatible with the theme of the community.

e. No addition, alteration, or renovation of an existing Dwelling Unit, or any other activity on a Lot, may alter the established Lot drainage (as established by the original builder).

f. No alterations or improvements that create or provide a flat, non-draining roof surface may be made. All roofs must drain to the ground solely within the Lot area and shall not drain directly onto a neighboring property.

2. <u>Ancillary Equipment</u>

a. Roof-mounted equipment (including without limitation mechanical and air conditioning) is prohibited. No solar heating equipment or device is permitted outside the Dwelling Unit except such devices whose installation and use is protected by Federal or Arizona law. Notwithstanding such protection, an application for such equipment or device must be submitted for approval under Article IV of the Declaration prior to installation and approval, and approval will be granted only if:

(i) First, such equipment or device is designed for minimal visual intrusion when installed (i.e. is located in a manner which minimizes visibility from the street or an adjacent Lot and is consistent with the Community-Wide Standard); and

(ii) Second, the equipment or device complies to the maximum extent feasible with the Design Guidelines within the confines of the applicable governmental regulations.

b. One satellite dish antenna of one meter or less in diameter may be erected on any Lot. The satellite dish antenna is permitted in the rear or side yard, below fence wall level, if reception is available at that location. Placement in the front of house or front yard is permissible only if the rear or side yard placement will preclude reception. The satellite dish shall be of a color compatible with the

color scheme of the house (painting the dish may be required so long as the painting of the satellite dish will not void the manufacturer's warranty or affect the signal). When placed in the front of house or front yard, screening is required when appropriate and does not interfere with reception.

Any transmission cable from a receiver to the house must be underground.

ORIGINAL CONSTRUCTION

The term "original construction" shall include all improvements, landscaping, walls and fences installed by the original builder. All other improvements, landscaping, walls and fences are modifications and will require approval of the Reviewer prior to start of construction.

Applications for approval of construction shall be submitted to the appropriate Reviewer in accordance with procedures set forth in the Declaration and these Design Guidelines.

II. DESIGN GUIDELINES (ANTHEM COUNTRY CLUB)

Nothing in these guidelines is intended to waive the right of the Reviewer to approve or deny any modification of property within Anthem pursuant to Article IV of the Declaration of Covenants, Conditions and Restrictions for Anthem Country Club. The detail provided herein is intended to be a guideline only. No work may commence until after approval of the Reviewer has been obtained pursuant to Section III of these Design Guidelines.

A. LANDSCAPING REQUIREMENTS AND GUIDELINES

Each Owner shall landscape their front yard and back yard unless installed by the original builder, within a period of Ninety (90) days from close of escrow or the issuance of a certificate of occupancy, whichever is later. All landscaping shall comply with the following minimum requirements:

1. The use of native or compatible drought-tolerant species from the attached "Approved Plant List" (Appendix B) is required for all yard landscaping.

2. All landscape plantings shall be planted a minimum of 18" – 24" away from structures. Trees with shallow and/or invasive roots planted within five (5) feet from concrete walks shall include root barriers. It is recommended that trees be planted at least five feet from Lot lines.

3. A fully automatic underground watering system shall maintain all landscape plantings. Irrigation systems that use drip emitters instead of spray heads or bubblers are highly

encouraged. When it is necessary to use sprinklers, care should be taken to avoid overspray on hardscape, structures, walls, fences and windows.

4. Landscape must cover a minimum of 50% of the landscape area for a residential lot. (The method for calculations of the landscape area and selection of plant material for lots is provided in this section).

Homeowners should attempt to create a landscape scheme with as mature an effect as possible at the time of installation. No unusually immature or undersized planting will be permitted.

Plant compositions should employ a variety of sizes of plants when planting rather than all one size. This creates immediate interest in the landscape scene and helps avoid the look of undersized plantings. Shrub selection should take into account the natural mature height of the species selected to avoid heavy pruning. Planting schemes should include species from the groups listed below. The L.E.C. realizes that plant sizes and relationships will differ depending on the species chosen and will review each case individually. Plant types shown below are intended to include accent plants, vines and ornamental grasses in addition to shrubs and groundcovers (refer to the Approved Plant List). These plants should be incorporated into the most appropriate size category.

Suggested Plant Size/Type Ratios:

Groundcovers:	Low, wide spreading plants up to 18" or 2' in height	(35%)
Small Plants:	Plant materials which are under 2' in height which are not classified as ground covers.	(15%)
Medium Plants:	Plant materials that range between 2' and 4' in height	(10%)
*Large Plants:	Plant materials above 4' in height	(30%)
*Trees:	36" Box	(5%)
Cacti:	Sizes vary from small to large	(5%)

*Placement of larger shrubs and trees should be carefully considered so as not to overpower small spaces, block views from windows or to create a situation where heavy pruning is required to keep the plant size within the space allotted.

The use of multi-trunk trees is encouraged over single trunk trees within Front Yards. This adds to the informal, natural look along the streetscape. Single trunk trees should be used within narrow side yards where canopies can clear structures and not restrict circulation.

Front Yard landscape and maintenance shall be continuous from the back of curb or the back of sidewalk, whichever is appropriate and shall be the responsibility of the Homeowner.

Mature growth of plant materials shall not encroach on sidewalks or restrict pedestrian circulation. To maintain sight lines along street corridors, plant heights within Right-of-Way easement should not exceed two (2) feet. The L.E.C. may impose setback requirements to address the unique

characteristics of any lot in relationship to street, other lots, open spaces, golf course or any other visible relationship to the lot in review.

The following is an example of the step by step method used for calculating the number, size and ratio of plant material to be used in landscape designs.

Calculations for Determining Number, Size & Ratio of Plant Material

A worksheet must accompany every landscape submittal. Blank forms are provided for your use at the end of this example. Incomplete submittals will not be reviewed.

The following example is based on large lot 95' x 120', Series Four home with a 20' Front/25' Rear set back requirement. (Note: The front setback varies at either 14' or 20' depending if you have a casita and/or a third car garage vs. a two car garage).

Step One:

Determine the area of the yard to be landscape in square feet. Do not include any paved areas such as patios, driveways, sidewalks, etc. (Area = length x width.)

Size of Landscape Area in Square Feet (SF):		
Front Yard	95' (lot width) – 20' (driveway width) x 20' (front building set-back)	= 1500 SF
Rear Yard	95' (lot width) x 25' (rear building set back) (Note: "Total" rear yard includes side yard)	= 2375 SF
	75' (side yard depth) x 10.5' (Side Yard set back) x 2	= 1575 SF
Total Rear Yard		= 3950 SF

Step Two:

Determine the minimum portion of the landscape area to be covered with plant materials. Multiply the overall landscape area x 50% = the minimum area of landscape coverage required. Determine how many plants will be needed to fill 50% of the landscape area. Use 20 square feet for the front yard and 80 square feet for the rear yard as the average coverage for each plant. If the landscape area of the Front Yard is 1500 square feet, multiply x 50% = 750 square feet. 750 square feet divided by 20 square feet per plant = the number of plants required to fulfill the minimums. In this case 38 plants are required.

			Rear Yard (Includes side yards)	
Total Plants:	Front Yard			
	Required	Provided	Required	Provided
	38		25	

Step Three:

Determine the breakdown of plant types: Groundcovers, Small Plants, Medium Plants, Large Plants, Trees and Cacti. These ratios are intended to serve as a guideline to promote variety in the planting design. While actual numbers may vary slightly from the suggested ratios, significant variations may indicate an imbalanced design. To determine the number of plants required for each plant type, take the overall number of plants determined in Step Two and multiply by each of the suggested ratios:

FRONT YARD

TOTAL # of Plants	RATIO	TYPE OF PLANT	BY TYPE # of Plants Required	BY TYPE # of Plants Provided
38	35%	Groundcovers	13	
	15%	Low Shrubs, Small Accents	06	
	10%	Medium Shrubs, Medium Accents	04	
	30%	Large Shrubs	11	
	05%	Trees	02	
	05%	Cacti	02	
	100%	TOTALS	38	

REAR YARD

TOTAL # of Plants	RATIO	TYPE OF PLANT	BY TYPE # of Plants Required	BY TYPE # of Plants Provided
25	35%	Groundcovers	09	
	15%	Low Shrubs, Sm. Accents	04	
	10%	Medium Shrubs, Medium Accents	03	
	30%	Large Shrubs	07	
	05%	Trees	01	
	05%	Cacti	01	
	100%	TOTALS	25	

Step Four

Determine the breakdown of plant sizes, i.e., 50% of the plant materials utilized should be 5 – 15 gallon and 36" box size material, while the remainder, 50% may be 1-gallon material. Take the total plant count determined in Step Two and multiply by 50% to determine approximate quantities of 1, 5 and 15 gallon plant materials.

Note: Trees cannot be smaller than 15 gallon and a minimum of 1" – 36" Box Tree is required for front and rear yards.

TOTAL # OF PLANTS	1 Gallon (50% of Total)		5–15 Gallon & 35" Box Tree (50% of Total)	
	Required	Provided	Required	Provided
38 Front Yard	19		19	
25 Rear Yard	12		13	

Step Five:

Prepare the landscape design using the total number of plants established in Step Two and the plant type ratios determined in Step Three. When preparing the plant legend consult the Total from Step Four. Slower growing plant materials including specimen cacti and some accent plants, some large and medium shrubs, should be specified in larger container sizes (5 gallon +) while the fast growing materials can be specified as 1 gallon material. Market availability of plant materials at the time you prepare your plan may also play a significant part in which plants are specified as larger containers.

PLANT LEGEND

Prepare and submit a plant legend with all landscape submittals. The plant legend must reflect the actual plant materials, size and quantities depicted on the landscape plan. (Example of plant legend format shown on next page).

DRAW ALL PROPOSED PLANT MATERIALS AT THEIR MATURE SIZE ON A SCALEABLE PLAN. PLEASE INCLUDE PLANT LEGEND ON ALL PLANS. PLANTS ARE TO BE A MINIMUM OF 8 1/2 X 11.

EXAMPLE OF PLANT LEGEND

For the Residence: _____

Front_____ Rear_____ (SEPARATE LIST FOR EACH)

Symbol	# Plants	Size Gallons	Common	Bontanical

Additional plants may be required to cover bare areas of large lots at the discretion of the L.E.C.

Variances to these minimums may be made by the L.E.C. depending on Lot size. In addition, for corner lots only, any public right-of-way area(s) adjacent to the Lot will be included in the front yard area in applying minimum requirements. Landscaping plans for side yards adjacent to garages shall

include a minimal amount of plant material – a granite "only" design in this area is not acceptable. (This amount is included in the before mentioned calculations of the rear yard.) All plants must be selected from the approved plant list (Appendix B), no exceptions!

The prohibited plant list includes species with characteristics which are potentially destructive to the natural areas, and native plants; and by reason of profuse and noxious pollen, excessive height, weed-like characteristics of excessive growth, high water demands and other similar traits may not be used within Anthem. Under no circumstance is it permissible to plant a prohibited plant or allow it to remain.

Rose, vegetable and or herb gardens are permitted in the rear yard only when planted in a container or contained area not to exceed 150 square feet and 5 feet in height from finished grade of home site. Planted area must be a minimum of 15 feet from view fencing and vegetable gardens screened from view of street and/or adjoining properties.

B. INERT GROUND COVER

All granite shall be a minimum of 1 ½" minus or 7/8" screened Apache Brown, New River Cobble, or Saddleback Brown, and shall be applied as a 2" thick layer minimum unless otherwise approved by the L.E.C. White rock and any rock with coatings of any kind are prohibited. No artificially colored rock will be permitted as ground cover. Ground cover, inert material and any other landscaping softscape or hardscape shall not be used to spell out or form names, nicknames, initials, names of states or cities, athletic teams, slogans, states, emblems, geometric patterns or any other work, image, symbol or communication.

Stones and boulders shall be limited to those geologic types which are indigenous to the site. **Boulders shall be buried into the grade a minimum of 1/3 of the height of the boulder** to enhance a more natural appearance. Native rock or river rock may be used in drainage swales.

(Example "INERT MATERIALS" List)

Symbol	*Description*	Quantity	Size

C. TURF

A maximum of twenty percent 20% of the front yard area of a residence including driveway may be planted in turf. Front Lot area is defined as that area between the front Lot line and the house front, as extended to each side Lot line. In addition, no turf may be placed within the public right of way (R.O.W.) or tract area. Only non-seeding grasses are permitted, and if a warm season grass that goes dormant in winter is used, overseeding with Rye is required. Turf in enclosed rear yards is permitted provided that no turf or spray irrigation shall abut walls or fences. Overseeding would be required if rear yard is visible from adjacent properties. If damage occurs, the owner shall incur all costs of repair to his and the neighboring property and shall not hold the original builder responsible. Planting areas of at least three feet (3') are recommended between walls, fences and structures and turf and spray irrigation.

Artificial turf (putting greens) may be permitted in the rear yard only. Artificial turf may not exceed 400 square feet 75% of the landscape area whichever is smaller and cannot be of carpet material. A sample of the product must be submitted to the Reviewer along with the Application for Approval.

D. HEADERS

Headers are continuous materials that separate turf from other planter or inert areas. Headers shall be of concrete or masonry material, **may not exceed 12 inches** in width and shall be flush where they abut other paved areas. Rock, railroad ties, plastic, aluminum and redwood header boards are prohibited.

E. IRRIGATION

All landscape irrigation shall be underground, automatic, low water use drip systems, except for turf or flower bed areas which may use spray systems. Overspray onto public sidewalks or streets are prohibited. While native and arid region plant materials require minimal water, the specific requirements vary from plant to plant and location to location.

With the exception of side yards adjacent to public R.O.W., Owners may not irrigate native landscape areas beyond residential walls. The native vegetation in these areas does not require additional water and irrigating these areas can lead to disease and death of the native plants, particularly cacti, and aid in the spread of undesirable plant species or weeds. The Association may from time to time install temporary irrigation systems if needed to establish new vegetation areas. Native plants need regular water during the establishment period. Transplanted desert trees may require irrigation for several years before developing a large enough root system to survive sustained periods of drought. Other small plant materials establish in a year or less.

F. WALLS & FENCES

Unless installed by the original builder, walls and fencing that totally enclose any portion of the front lot areas are prohibited, with the exception of courtyard entries which are limited in height to four (4) feet and must be stuccoed and painted to match the color scheme of the house. The LEC will review requests for courtyard walls higher than four feet but the following requirements must be met. (A), the courtyard wall must have been an option from the original builder at time of purchase, and (B), the courtyard wall and entry doorway must be constructed exactly as the original builder provided. Contact the Homeowners Association for specifications.

Retaining walls shall not exceed three (3) feet in height from finished grade in the front yard or four (4') feet in height in the rear yard. Walls that are "Visible from Neighboring Properties" must be painted to match the color scheme of the house.

Alterations of view fencing will be considered on an individual basis. The homeowner is required to submit detailed drawings along with photographs of existing fencing to the L.E.C.

Any wrought iron fencing must be of a powder coat finish in an acceptable color approved by the L.E.C.

No chain link or similar material or wood, or split rail including traditional picket fences, shall be used as fence material on lots.

Variance in wall height may be granted for walls adjacent to public rights of way (provided that the majority of owners within that Neighborhood have signed written consents to such variance.)

Unless otherwise specified, maximum height of walls shall be measured from the finished ground elevation on the highest side of the submitted wall.

Cut or fill slopes along the exterior of the wall shall be smooth and taper gradually to match existing grades. Retaining walls, which are partially below the finished grade or walls used, as planters shall be properly moisture proofed to avoid unsightly water staining. If staining occurs, the homeowner is responsible for the complete repair of the problem.

The original builder view walls may be altered at negative edge pools only to enhance the effect of the pool. All pool access and fence requirements must be maintained as determined by local, county, state, and national authorities. Any modifications must be approved by the L.E.C. and will be done so at the sole expense of the homeowner.

The installation of a wildlife (rabbits, rodents, snakes, etc.) barrier on rear yard perimeter view fencing is allowed. The barrier can be no greater than 24 inches in height and must be painted to match the color of the view fencing. The recommended material for the barrier is ½ inch hardware cloth. Installation of the barrier on rear yard party wall view fencing requires neighbor constent.

G. ORNAMENTATION

Driftwood, wagons, skulls, artifacts, wagon wheels, bridges, sculpture, artificial plants, signs (other than Real Estate signs, home security monitoring signs and signs that cannot be prohibited by law), topiary and any other type of ornamentation are prohibited in front yards. Artificial plants are prohibited in rear yards.

H. WATER FEATURES

All water features, whether built on site or purchased fully assembled, are not allowed in front yards (except in walled courtyard areas where they are limited to 4'-0" in height). No fountain or shower is allowed to drain directly into a wash corridor or Common Area. Water features in rear yards are allowed but must not exceed six (6) feet in height and must be a minimum of five (5) feet from all Lot lines.

I. SWIMMING POOLS

Swimming pools and hot tubs are not allowed in any front yard with the exception that pools and hot tubs permitted in courtyards with full facade six (6) foot walls)." Temporary or above ground pools larger than 8 feet in diameter are not allowed on the property. Swimming pools must conform to County and/or City regulations. Set back for pool decking must be a minimum of five (5) feet from all walls and fences with landscaping between the decks and walls. The grading and drainage of the lot must not be altered from the original site plan. All pool equipment should be screened from view from streets and/or adjoining properties. Pool equipment screening should also be designed to mitigate noise. Slides and diving boards or other accessories cannot exceed six (6) feet in height and must be a minimum of five (5) feet from all lot lines.

In no instance shall any portion of a perimeter fence be temporarily removed or altered, including but not limited to removal in connection with the installation or construction of a swimming pool without prior approval of the L.E.C. Any Owner in violation of this provision shall be subject to monetary penalties, suspension of voting rights and Common Area use rights, and other sanctions permitted under the Declaration.

A pool may not be backwashed into the washes, common landscaped areas, drainage ways or streets. All backwash water should be retained on the Owner's Lot.

See (Section F - Walls and Fences) for negative edge pool wall enhancements.

J. DRIVEWAY EXTENSIONS

Concrete driveway extensions for access to rear yards are prohibited unless designed and built by the original builder prior to closing. No concrete may be located in driveway areas other than that which is included with initial home construction; however, additional concrete walking area(s) adjacent to the driveway which extends the overall total driveway width not more than four (4) feet (2 feet on each side) may be considered for approval by the L.E.C. Excessive use of concrete (as determined by the L.E.C.), in front, street side and backyards will not be allowed.

As an option, driveways and walkways in front yards can be made of pavers, aggregate and/or colored concrete. The only acceptable concrete colors for driveways and/or walkways are "Dove Sky" or "Pewter" (both are matte colors). Contact the Homeowners Association for contractor/manufacture information. Concrete staining is not allowed. The color for pavers must match or compliment the color scheme of the house.

K. HARDSCAPES

Additional pavement or garden walls other than those built by "original builder" must be approved by the L.E.C. Any additional pavement areas in the form of pavers, concrete, blacktop, flagstone, brick, tile or wood decking must be approved. No bollards, chains or rope will be allowed as part of the front yard landscaping.

Walkways in the front yard may be concrete, flagstone, imitation flagstone, or tile. No decomposed granite walkways are allowed in the front yards.

L. AWNINGS AND CANOPIES

Awnings and canopies are allowed in rear and sideyards only. The color should match the color scheme of the house and be constructed of canvas or other woven material. Rigid metal shutters are permitted, only in rear and side yards, and must match the color scheme of the house. No rigid metal or plastic awnings are permitted in front yards. Metal or wood frames for awnings and canopies must be painted to match either the dominant or trim color of the house. All awnings and canopies are to be maintained in "like new" condition. Owners will be required to replace awnings and canopies that show signs of weathering.

M. BASKETBALL GOALS

Permanent basketball goal, basketball standards or backboards in rear or side yards which are or would be "*Visible From Neighboring Property*" are prohibited. Permanent basketball goals are prohibited in front yards. Portable Basketball goals may be used on a lot without prior approval, but must be stored overnight or when otherwise not in use so as not to be "Visible From Neighboring Property".

N. COLOR SCHEME

Exterior paint color must be selected from the color palette originally approved by the original builder. All paint color changes must be submitted for approval by the L.E.C. All fabric, tile and masonry colors must match or complement the color scheme of the house for which they are being used.

O. FLAG DISPLAYS

In conjunction with Senate Bill 1055, approved by the Governor of Arizona on April 10, 2006, and effective as of September 21, 2006, the flag display guidelines for the Anthem Country Club Community Association are amended:

a. Flags must be flown in conformance with the Federal Flag Code. In addition, only the following flags can be displayed: The United States Flag, the State Flag of Arizona, POW/MIA Flag, flags of the Arizona Indian Nations, military service flags of the United States Army, Navy, Air Force, Marine Corps, Coast Guard. Three Flags are allowed.

   Pursuant to Section 3 (c) of the Federal Flag Code, no flag shall be placed above the United States Flag.

b. The maximum size of any flag shall be 4 (four) feet by 6 (six) feet.

c. The maximum height of a permanent, removable or freestanding pole shall be 20 feet or the height of the roof peak, whichever is less.

d. Wall mounted flag poles shall be a maximum of 5 (five) feet long with attaching brackets painted to match the attachment area and will not require prior approval.

e. All poles and flags must be maintained in excellent condition according to the United States Flag Code, Title 36, U.S.C., Chapter 10.

f. Only one permanent, removable, wall mounted or freestanding pole will be permitted per residence or lot.

g. It will be the responsibility of the homeowner of the lot on which a flag is displayed to do so with the proper respect and flag etiquette.

P. GATES (COURTYARD AND SIDE YARD)

Gates are to be constructed of a metal/wrought iron/wood combination conforming to the design details available from the L.E.C. Wood slats are to be painted to match the color scheme of the house or natural wood stained as approved by the L.E.C. Wrought iron gates for courtyards must be of a powder coat finish in an acceptable color approved by the L.E.C. All metal parts and hardware are to be painted to match the color scheme of the house. Double gates are allowed when approved by the L.E.C. No gates will be allowed on sides of Lots for which access would cross a Vehicular Non-Access Easement (V.N.A.E.). No gate access will be permitted to the golf course or open space.

Q. GAZEBOS/RAMADAS

Gazebos and ramadas are allowed in rear yards only and may not exceed ten (10) feet in height measured from ground level. A gazebo/ramada must be painted to match the color scheme of the house or have a natural wood finish as approved by the L.E.C. A gazebo/ramada shall be located a minimum of five feet (5') from any lot line. Screening of such structures with appropriate landscaping and thorough consideration for all neighbors is required. Unless constructed as a trellis a gazebo/ramada roof "Visible from Neighboring Property" shall be of tile or other approved roofing material.

R. LIGHTING

Exterior lighting is to be understated. Emphasize downlighting as opposed to uplighting; downlighting has less impact on the night sky as light is cast downward rather than spilling into the nighttime sky. All lighting should be architecturally integrated to structures. Exterior lights shall be mounted a maximum of 12 feet high on building surfaces and the light source shall not be Visible from Neighboring Property. Fixtures except those immediately at the main entrance of a residence should be shielded from view (under building eaves, recessed in niches, behind walls or landscape) and painted to match the color of the house where attached. Exposed bulbs and any lighting which produces excessive glare or that shines on another Lot are not allowed. Security lighting including motion-activated floodlights shall, at a minimum, be located beneath eave overhangs. Use of colored lenses or bulbs is not permitted except as holiday decoration. Landscape lighting is to be low voltage.

Owners may display holiday decorations located or visible from outside their Dwelling Units if the decorations are of the kinds normally displayed in single family residential neighborhoods, are of reasonable size and scope, and do not disturb other owners and residents by excessive light or sound emission or by causing an unreasonable amount of spectator traffic. Holiday decorations may be displayed in season only from November 1st to January 31st and, during other times of the year, from three weeks before to one week after any nationally recognized holiday.

S. PATIOS AND DECKS

Patios and decks may be constructed of wood, masonry, concrete or stone so long as the design and texture of the material is in harmony with the house. Paint color shall match the color scheme of the house. Unless constructed as a trellis, a patio roof "Visible from Neighboring Property" shall be of tile or other approved roofing material.

Screened in patios (including Arizona Rooms) are not permitted in front or rear yards.

T. OTHER BUILDING FEATURES

Barbecues, Firepits and Fireplaces

Wood burning and/or gas built-in barbecue units, firepits and/or fireplaces must be contained within the rear yard or courtyard with the rear yard or courtyards with full façade six (6) walls. Site chimney elements to avoid obstructing views from inside the house or from adjacent properties must be setback a minimum of five (5) feet from any lot line and be no more than eight (8) feet in height measured from grade of residence. Gas burning types of kivas are acceptable. If stucco, they must be painted to match the color of the home.

Rain Gutters

Rain gutters may be added to residences to prevent erosion of landscaped areas. All gutter installations must be configured to the appropriate Roof Drainage Plans for specific homes and elevations. In addition, they must be painted to match the home. Drainage shall not be conveyed onto adjacent properties.

U. PLAY EQUIPMENT

Children's play equipment must be located at least five (5) feet from adjacent lots and may not exceed a platform height of six (6) feet with a maximum shading/roof height of 10 feet. Equipment "Visible from Neighboring Property" shall be painted to match the color scheme of the house (including slides and ladders) or have a natural wood finish. Any canvas awning shall be of a color matching the house (beige or tan; no stripes or multi colors allowed) and no flags are allowed. All structures shall be maintained so as to present a neat and clean appearance. Screening of such structures with appropriate landscaping and thorough consideration for all neighbors is required.

V. SECURITY DOORS

Security doors must be of simple design, modest in ornamentation, and of a color compatible with the residence. No exposed metal including wrought iron is permitted on doors or windows with the exception of security doors (not windows) as approved by the L.E.C. A picture or photograph of the security door is required with the submittal.

W. STORAGE SHEDS ARE NOT PERMITTED

X. TENNIS COURTS OR SPORTS COURTS ARE NOT PERMITTED

Y. WINDOWS

Reflective glass or window film with a visible light reflection rate of 20% or greater is not allowed for any window or skylight. Non-reflective glass of bronze or similar color may be used. In no event shall the interior or exterior of any window be covered with reflective material such as foil, or with paper, bed sheets or other temporary coverings. Permanent window coverings must be installed within 90 days after the close of escrow. No exposed metal including wrought iron is permitted on doors or windows with the exception of security doors (not windows) as approved by the L.E.C.

Z. SIGNS

Only Anthem approved real estate signs, home security monitoring signs and signs that cannot be prohibited by law are permitted.

AA. ARCHITECTURAL CHARACTER:

1. Modifications to, Additions to and Maintenance of Existing Homes.

   a. The *architectural design* of any and all additions, alterations and renovations to the exterior of an existing home shall strictly conform to the design of the original home in style, detailing, materials and color.

   b. The height of any addition to an existing home shall not be higher than the original roofline.

   c. *All materials* used in the maintenance, repair, addition to and alterations of an existing home shall be consistent with those materials used in the original construction of the home as to color, composition, type and method of attachment. The L.E.C. may allow substitute materials if such materials are deemed by the L.E.C. to be compatible with the theme of the community.

   d. All building colors and materials shall meet the provisions of the guidelines and all other applicable laws for upper desert and hillside landforms.

   e. Bright untarnished copper and other metallic surfaces shall be treated to reduce reflections.

   f. All maintenance and repairs of existing homes shall be consistent with the Community-Wide standard.

2. Prohibited Structures:

   The following structures shall be prohibited in Anthem Country Club.

a. Tennis Court and Sports Courts

b. Storage buildings or sheds

c. Clothes lines or clothes poles

d. Detached garages.

e. Tents of a permanent nature

f. Basketball hoops and backboards--with the exception of portable basketball hoops that are stored from view of neighboring property, including lots and common area, when not in use.

III. APPLICATION AND APPROVAL REQUIREMENTS

A. GENERAL

Pursuant to Article IV of the Declaration, any Owner wishing to:

- construct improvements,
- modify or add to existing improvements (including painting),
- Install a pool, spa, or other water features,
- Construct or install walls, fences, or hard, permanent materials, such as paving, brick, masonry, wood trim, concrete, rocks, flagstone, outdoor barbecue, fireplaces, or other inert material ("hardscape").
- Landscape (including original landscape not installed by original builder).
- Alter grading or drainage, or
- Placement of any object (i.e., lighting and decorations – except decorations as previously described) requires owner submitting an application and such other materials as set forth in Article 4 hereof (a "Review Request") to the L.E.C., as described below, and receive approval from the L.E.C. prior to commencing construction. There are no exemptions or automatic approvals, with the exception that a submittal of an application and plans for repainting the exterior of a structure in its existing color is not required, if such existing color was previously approved by the L.E.C.

It shall be the responsibility of all Owners to comply with all standards and procedures within these Design Guidelines, as well as all requirements of the Declaration and any applicable Supplemental Declaration.

B. Lifestyle Enhancement Committee Structure (L.E.C.)

Architectural and design review and control for Anthem Country Club is handled by a Lifestyle Enhancement Committee established by the Board of Directors ("Board") of the Anthem Country Club Community Association, Inc. ("Association"). The L.E.C. has been established to monitor, review, and control the development of Anthem Country Club.

The L.E.C. shall review plans and specifications, and the "Associations" shall enforce the respective Design Guidelines and may promulgate additional design standards and review procedures. The L.E.C. has exclusive jurisdiction over original construction, initial landscape installation, unless installed by the original builder, modifications, additions, and alterations made to lots, to structures, and landscaping on lots. After a lot and its structures and landscaping have been completed according to approved plans, (original construction) the L.E.C. must review all proposed changes to the exterior of the structure and the lot.

C. Submittal Procedures

The following procedures shall apply to owners when submitting Review Requests to the L.E.C.

1. An application (sample form attached as Appendix A) requesting review by the L.E.C. is required for all Review Requests. The application shall include the following information:
   - a. Owner's name, mailing address and telephone number
   - b. The neighborhood, Lot number, and street address of the Lot
   - c. The Builder's original plan number and/or model name of home
   - d. The nature of the request. Such request shall be limited to:
     - i. Review and approval of final plans (initial submission)
     - ii. Reconsideration of a "not approved" Review Request or any notation of an "approved as noted" Review Request
     - iii. Review and consideration of exception to or deviations from the Design Guidelines
     - iv. Review and consideration for a change to the provisions of the Design Guidelines.
   - e. A brief description of the proposed construction or modification.
   - f. Planned completion date for the construction or modification proposed in the Review Request.
   - g. An acknowledgment that the Owner is responsible for scheduling all work in a timely manner and for complying with any approval issued by the L.E.C.

h. The names, address and telephone numbers of Owner's agent, representative, or subcontractor (if applicable).

2. In addition to the application, the owner shall submit plans for the proposed construction or modification as follows:

a. For landscape, contouring, irrigation or lighting plan approval or amendments to approved plans, owner shall submit plot plan and one copy of the landscape, contouring, irrigation and lighting plans for the Front and Rear Yards of the Lot. Plans must be drawn to scale (1" = 10 feet or 1" = 20 feet) and must clearly indicate the following information:

i. Identify the location of all existing or proposed plants including trees, shrubs, accent plants and groundcover. Draw proposed and existing plants at their mature size using symbols or call outs that correspond to the plant legend.

If the Review Request is for an amendment to a previously approved landscape plan, the existing trees, plants and shrubs shall be marked on the landscape plan with a circle marked with a dashed line and a cross in the center indicating their location. The proposed additions shall be marked on the landscape plan with a circle marked with a solid line and a dot in the center. All landscape materials proposed to be removed shall be described as part of the Review Request.

ii. The plant legend must identify the botanical and common name, installation size, size of plant at maturity (should be same size as drawn on the plan, and quantities. Incomplete submittals WILL NOT be accepted for review.

iii. Identify areas to receive any hardscape treatments. Clearly mark the hardscape treatments of the landscape plan and the legend so that the L.E.C. can easily determine the location, type and color of the material. Submit material and color sample upon request by the L.E.C.

iv. Identify areas to receive landscape. The plan shall clearly indicate the location and type of treatment proposed, i.e., decomposed granite locations, native rock applications, or boulders. Legend should indicate proposed quantities, size of material and color.

v. Any proposed changes to the original grading must be accompanied by a contouring plan using minimum 1-foot contour intervals. Indicate proposed slope ratios along the face of each contoured area (3:1, 4:1, etc.). Contouring should occur on all Front Yards or any Side Yard located outside the fence to provide visual interest to the streetscape and to help provide smooth, seamless transitions between proposed and existing grades. Contouring should not result in a lumpy appearance.

Lots have been designed and graded to provide positive drainage from the lot to the street or to a wash/open space area. The contouring plan must address proposed direction of flow across the site. The Owner shall hold harmless the Association, the L.E.C., and the original builder for any damage caused by the alteration of the grade by Owner in connection with the design or installation of Owner's landscaping, including damage to owner's house. The owner shall be responsible for any additional damage to the property, house or neighboring property caused by altering the grade.

vi. Identify location of any proposed landscape lights, transformers or electrical equipment and method for screening. Provide construction details on the plans and equipment specifications in the legend including type of fixture, color and finish of light fixture, voltage and bulb wattage requirements. The L.E.C. may require field-testing of fixture locations at night prior to final installation and/or the owner to provide an on-site demonstration of proposed site lighting techniques.

b. For changes to or additions to the home, the Owner shall submit one set of floor plans for the site, including the plot plan and a copy of the floor plan for the model and elevation. On such plans, Owner shall draw the proposed changes or additions to the exterior elevation. If Owner has a photograph of another house or a picture from a magazine that will assist the L.E.C. in its review, such photo should be submitted. The application should contain a description of the materials Owner plans to use in such changes or additions. If the change or addition affects the roof or roofline, a roof plan should also be submitted. A building section may be requested depending on the complexity of the change

or addition. The L.E.C. may require that plans be prepared by a qualified architect or engineer depending upon the nature of the request.

c. For all other improvements, changes or additions to the Lot or the home, including, but not limited to, construction, installation, or modification of walls and fences, ancillary equipment, signage, pools, play equipment, grading, drainage, and irrigation systems, the Owner shall submit the plot plan drawn to scale showing the locations, height, and dimension of the proposed improvement, change, or addition, the property line of the lot, the setback requirements, any easements, the footprint of the home and driveway, sidewalks, decks, patio, walls, and existing landscaping. The Owner shall also submit a detailed description of the proposed improvement, change or addition, the purpose of the proposed improvement, change or addition, construction specifications, material and color samples, if appropriate, and any additional information or clarification requested by the L.E.C. Copies of all necessary permits, fees, and applications shall also be submitted.

3. The L.E.C. may request additional information and clarification of the information given if deemed by the L.E.C. For example, the L.E.C. may request that large color samples (12"x12") be painted on key exterior walls prior to completing a project. The panel samples can be observed by the L.E.C. at various times during the day to ensure their integrity of color under different levels of sunlight. Until all requested information is provided to the L.E.C., the Review Request shall be deemed incomplete.

4. All Review Requests should be addressed to Anthem Country Club Community Association, Inc. at such address as designated by the Board in written notice to the Owners. Please note that the request is for the attention of the L.E.C.

D. Review Procedures

1. The L.E.C. shall review all requests without hearings and based solely on the information contained within the Review Request; provided, however, the L.E.C., its members and authorized agents may at any time request additional information or inspect a lot for compliance with the Declaration, these Design Guidelines and any approved plans for construction or modification.

2. The L.E.C. will reference these Design Guidelines in reviewing requests. Although these Guidelines address a broad range of exterior building and site conditions, they

are not intended to be all-inclusive. Variances to these Design Guidelines may be permitted by the L.E.C. only in accordance with Article 4.5 of the Declaration.

3. Within forty-five (45) days of receipt of a complete Review Request, the L.E.C. shall respond to the Owner. The L.E.C.s' decision shall be rendered in one of the following three forms:

   a. "Approved" – The entire document submitted is approved in total

   b. "Approved As Noted" – The document submitted is partially approved. The Owner must comply with incorporating the L.E.C.s' comments and gain field approval after the construction or alteration.

   c. "Not Approved" – The entire document submitted is not approved, and no work may commence.

E. Implementation of Approved Plans

1. All work must conform to approved plans. If it is determined by the L.E.C. that work completed or in progress on any Lot is not in compliance with these Design Guidelines or any approval issued by the L.E.C., the L.E.C. shall notify the Board. The Board shall notify the Owner in writing of such noncompliance within thirty (30) days of inspection, specifying in reasonable detail the particulars of noncompliance and shall require the Owner to remedy the same. If the Owner fails to remedy such noncompliance or fails to commence and continue diligently toward achieving compliance, then such noncompliance shall be deemed to be in violation of the Declaration and these Design Guidelines.

2. If construction does not commence on a project for which plans have been approved within one hundred twenty (120) days of such approval, such approval shall be deemed withdrawn, and it shall be necessary for the Owner to resubmit the plans to the L.E.C. for reconsideration.

3. The L.E.C. shall include in any approval a maximum time period for the completion of any new construction or modification. The Owner may request an extension of such maximum time period not less than three (3) days prior to the expiration of the maximum time period, which the L.E.C. may approve or disapprove, in its sole discretion.

4. If construction is not completed on a project for which plans have been approved within the period set forth in the approval or within any extension approved by the L.E.C.,

such approval shall be deemed withdrawn, and such incomplete construction shall be deemed to be in violation of the Declaration and these Design Guidelines.

F. Reconsideration of "Not Approved" and Approved As Noted" Decisions

Any Owner shall have the right to request reconsideration of a decision of the L.E.C. by resubmitting the information, documents and fees set forth in Article III; however, such request shall be considered only if the appellant has modified the proposed construction or modification or has new information which would, in the L.E.C.'s opinion, warrant a reconsideration. If an Owner fails to request reconsideration of a decision of the L.E.C., or if the L.E.C. after such request again rules in a manner aggrieving the appellant, the decision of the L.E.C. is final. The filing of a request does not extend a maximum time period for the completion of any new construction or modification, including the period for completion of initial landscaping.

G. Building Permits

If the plans submitted by an Owner require a building permit, it is the responsibility of the Owner to obtain such a permit. The approval of the L.E.C. is not a guarantee that such plans will be approved by Maricopa County or the City of Phoenix nor does it satisfy agency building permit requirements. If the regulatory agency requires modifications to the plans, such modifications must also be approved by the L.E.C.

H. Fees

The Board may establish and charge reasonable fees for review of applications. Any fee payments shall be made at the time of request and prior to review by the L.E.C. All fees shall be made payable to the Anthem Country Club Community Association, Inc. and are non-refundable.

I. Enforcement

In the event of any violation of these Design Guidelines, the "Board" or the "Council" may take enforcement action pursuant to Section 4.7 of the Declaration. The "Board" or "Council" may remove or remedy the violation and/or seek injunctive relief requiring the removal or the remedying of the violation. In addition, the "Board," or "Council" shall be entitled to recover the costs incurred in enforcing compliance and/or imposing a fine, which fine shall not exceed ten percent (10%) of the cost of achieving compliance against the Lot upon which such violation exists.

IV. NONLIABILITY FOR APPROVAL OF PLANS

Section 4.6 of the Declaration contains a disclaimer of liability or responsibility for the approval of plans and specifications contained in any request by an owner. **PRIOR TO SUBMITTING PLANS OR INFORMATION FOR REVIEW, YOU SHOULD READ AND UNDERSTAND THIS DISCLAIMER. IF YOU DO NOT UNDERSTAND IT, PLEASE ASK A REPRESENTATIVE OF THE L.E.C. TO EXPLAIN IT TO YOU.**

V. CHANGES AND AMENDMENTS TO THE DESIGN GUIDELINES

The Design Guidelines may be amended as follows:

A. The "Board" or "Council" may propose changes to these Design Guidelines. Additionally, any Owner may submit to the L.E.C., proposed changes to these Design Guidelines for review and consideration.

B. Any amendment to these Design Guidelines shall be approved by two-thirds (2/3) of the members of the L.E.C., the Board, and Council.

C. Such amendment shall be promptly posted in a prominent place within the Properties.

D. All amendments shall become effective upon adoption by the L.E.C. Such amendments shall not be retroactive to previous work or approved work in progress.

E. In no way shall any amendment to these Design Guidelines change, alter or modify any provision of the Declaration, any Supplemental Declaration or the Articles or By-Laws of the Association.

VI. DEFINITIONS

"Visible From Neighboring Property"

"Visible From Neighboring Property" shall mean, with respect to any given object, that such object is or would be visible to a person six feet (6') tall, standing on any part of such neighboring property or common area at the elevation no greater than the elevation of the base of the object being viewed.

"Neighboring Property"

"Neighboring Property" shall include a Lot, Common Area, or other property, located in any direction from the Lot in question, that is either immediately adjacent to the Lot or is located in the general vicinity of the Lot (such that an item located on the Lot could be visible from the nearby Lot, Common Area, or other property).

APPENDIX A

ANTHEM COUNTRY CLUB ARCHITECTURAL REVIEW COMMITTEE
APPLICATION for APPROVAL
NOTE: SUBMITTAL CANNOT BE ACCEPTED WITHOUT HOMEOWNER SIGNATURE

This application is for Approval of Landscaping and Exterior Modifications
Submit one copy of plans, minimum size of 8 ½" x 11" maximum size of 11" x 17"

Date Submitted:_____/_____/_____

Homeowner Name:_____**Phone**_____

Anthem Address:_____**E-mail**_____

Other Mailing Address:_____

Nature of Request: check number & circle appropriate item **Est. Completion Date:**_____/_____/_____

( )1. Landscaping (Front Yard, Rear Yard-Please circle appropriate) (Provide a sample of granite)
( )2. Concrete Work Only (walkways, patio, etc.)
( )3. Walls, Fences, Gates
( )4. Patio Extension, Sun Screens, Awnings
( )5. Pool, Spa or Jacuzzi, Fountain
( )6. Satellite Dish
( )7. Security Door
( )8. Other:_____

Contractor Name & Phone No.:_____

Plans must include the following (where applicable): Plot Plan, Floor Plan, Exterior Elevations, Roof Design, Exterior Materials and Finishes, Landscaping Plan, Wall Dimensions with Side View, and such other items needed to reflect the character and dimension of modifications.

The undersigned acknowledges that any work performed prior to the written approval of the Anthem Country Club Community Association (ACCCA) will result in the homeowner being liable for all costs necessary to bring the property into compliance with the CC&R'S (DECLARATION) or DESIGN GUIDELINES.

Each homeowner acknowledges and agrees that in the event of damage or destruction of structures and/or the common areas (streets, sidewalks, washes, monument signs, walls, wrought iron fencing and etc.). Each homeowner is responsible for any damage done to the common areas by the homeowner or vendor contracted to perform work. Each homeowner shall come forward and report any damage to the common areas within the Anthem Country Club Community Association in order to repair or replace any damage and return to the condition it was in and to maintain the standards and aesthetics of the ACCCA.

In the event damage does occur, the homeowner is free to seek insurance relief. Any costs not covered by insurance proceeds shall be paid by the homeowner. By signing this application, I the homeowner authorize the ACCCA to enter the property for the purpose of inspecting all work indentified on the application as being satisfactorily completed.

_____ _____
(Required) Homeowner Signature **Date**

THIS APPROVAL DOES NOT RELIEVE ANY LOT OWNER FROM FULL COMPLIANCE WITH ALL PROVISIONS OF THE ANTHEM COUNTRY CLUB COMMUNITY ASSOCIATION CC&R'S AND CURRENT DESIGN GUIDELINE REQUIREMENTS. FURTHER, THIS APPROVAL DOES NOT CONSTITUTE APPROVAL OR COMPLIANCE WITH APPLICABLE ARIZONA OR MARICOPA COUNTY LAW, BUILDING AND/OR SAFETY REQUIREMENTS.

ACTION TAKEN BY ARC:
( ) Approved
( ) Approved as Noted (the request submitted is conditionally approved subject to noted conditions)
( ) Disapproved (the request is not approved and **must be re-submitted** with revisions)

Committee Member Signatures: _____ Date:_____

_____

COMMENTS: (See notes on plan)_____

Mail To: Anthem HOA Building ATTN: Landscape Submittal 3701 W. Anthem Way, Suite 102 Anthem, AZ 85086
Phone: 623-742-6050 Fax: 623-742-6170

Resolution
of the
Board of Directors
of
Anthem Country Club Community Association, Inc.

Subject: **Artificial Turf**

Submitted by: **Anthem Country Club Lifestyle Enhancement Committee**

The following resolution was duly adopted by the Board of Directors of the Anthem Country Club Community Association, Inc., (Association) at a regular meeting of the Board of Directors (Board) held on April 16, 2009.

WHEREAS, The Anthem Country Club Lifestyle Enhancement Committee recommends that the Design Guidelines be amended to state that the use of artificial turf be allowed in the front yards of residences with strict guidelines for quality and color to be determined by the LEC Committee.

THEREFORE, BE IT RESOLVED, that the Anthem Country Club Community Association, Inc. Board of Directors agrees to change the Design Guidelines to include the use of artificial turf in the front yards of residents with strict guidelines for use. See addendum for specifications.

The undersigned, by affixing their signatures hereto, do hereby consent to, authorize, and approve of the foregoing resolutions this 16th day of April, 2009.

R.D. Tucker, President

Ray Norris, Vice President

ARTIFICIAL TURF

Being in a desert environment, water conservation is an important priority. Because of this, the Lifestyle Enhancement Committee (LEC) and the Board of Directors will consider requests to install artificial turf on lots under the following conditions:

The LEC and/ or Board of Directors reserves the right to require removal/replacement of any area of artificial turf which does not meet the standards set forth by these guidelines.

Artificial turf must be professionally installed by a licensed representative of the manufacturer and covered by a manufacturer's warranty of at least seven years. The installation contractor must be licensed, bonded and insured.

Any request for installation of artificial turf must include a minimum of a one foot square boxed sample (including infill) of the exact finished turf product, along with the manufacturer's product specifications. Allowable tufted face weight (Pile weight) range is between 30 ounces to 78 ounces per square yard. The maxi mum width of the stitch gage is ¾ inch.

A minimum of 3 inches of compacted aggregate material shall be installed under the artificial turf surface (sub-base materials).

Artificial turf must be installed in such a way as to appear seamless and uniform. All seams must be glued. Only natural colors are acceptable, to remain unchanged from the natural green lawn appearance, and subject to approval by a LEC reviewer.

The length of the artificial turf shall be minimum of 1 ½ inches, not to exceed 2 ¼ inches.

Only turf requiring infill installation will be allowed. Infill material installation shall be according to turf manufacturer specifications or based upon standard industry guidelines. Minimum infill installation shall be 2 pounds per square foot.

Artificial turf must be maintained in like-new condition, color, and uniformity with no tears or seams visible. Any fading or deterioration of wear patterns and incidental damage of the product will necessitate replacement.

Artificial turf may not encompass more than 20% of the front yard, and utilize a header (border) as needed. See section D of the Design Guidelines for specific header specifications.

Replacement of the artificial turf must be pre-approved by the Lifestyle Enhancement Committee to ensure like type, color and quality of the replacement product.

Artificial turf (putting greens) may be permitted in the rear yard. Artificial turf may not exceed 400 square feet or 75% of the landscape area whichever is smaller and cannot be of carpet material. A sample of the product must be submitted to the Reviewer along with the Application for Approval. All artificial turf must be maintained in "like new" condition and must be replaced upon fading or deterioration.

Resolution
of the
Board of Directors
of
Anthem Country Club Community Association, Inc.

Subject: **Temporary Canopies**

Submitted by: **Anthem Country Club Lifestyle Enhancement Committee**

The following resolution was duly adopted by the Board of Directors of the Anthem Country Club Community Association, Inc., (Association) at a regular meeting of the Board of Directors (Board) held on April 16, 2009.

WHEREAS, The Anthem Country Club Lifestyle Enhancement Committee recommends that the Design Guidelines be amended to state that temporary canopies need approval of the LEC before installation.

THEREFORE, BE IT RESOLVED, that the Anthem Country Club Community Association, Inc. Board of Directors agrees to amend the Design Guidelines to state that temporary canopies need approval of the LEC before installation.

The undersigned, by affixing their signatures hereto, do hereby consent to, authorize, and approve of the foregoing resolutions this 16th day of April, 2009.

R.D. Tucker, President

Ray Norris, Vice President

Resolution
of the
Board of Directors
of
Anthem Country Club Community Association, Inc.

Subject: **Granite Color additions**

Submitted by: **Anthem Country Club Lifestyle Enhancement Committee**

The following resolution was duly adopted by the Board of Directors of the Anthem Country Club Community Association, Inc., (Association) at a regular meeting of the Board of Directors (Board) held on April 16, 2009.

WHEREAS, The Anthem Country Club Lifestyle Enhancement Committee recommends that the Design Guidelines be amended to state the addition of "New River Cobble" and "Saddleback Brown" as an approved granite colors.

THEREFORE, BE IT RESOLVED, that the Anthem Country Club Community Association, Inc. Board of Directors agrees to amend the Design Guidelines to state the addition of "New River Cobble" and "Saddleback Brown" as additional granite colors. Approval of the LEC before installation with a sample of the granite is required.

The undersigned, by affixing their signatures hereto, do hereby consent to, authorize, and approve of the foregoing resolutions this 16th day of April, 2009.

R.D. Tucker

Ray Norris

ACCCA

Resolution
of the
Board of Directors
of
Anthem Country Club Community Association, Inc.

Subject: **LEC/Address Lighting Guidelines**

Submitted by: **Anthem Country Club Lifestyle Enhancement Committee**

The following resolution was duly adopted by the Board of Directors of the Anthem Country Club Community Association, Inc., (Association) at a regular meeting of the Board of Directors (Board) held on October 15, 2009:

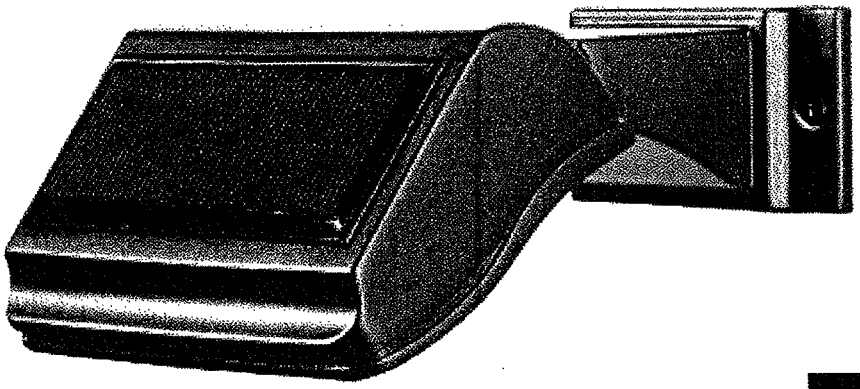
WHEREAS, The Anthem Country Club Lifestyle Enhancement Committee (Committee) recommends the approval of the use of house number/street address lighting to be added to the Design Guidelines. Homeowners may install the pre-approved lights without submitting an application. Any lights that are not on the approved specification list must be submitted for approval.

THEREFORE, BE IT RESOLVED, that the Anthem Country Club Community Association, Inc. Board of Directors agrees to approve the amendment to the Design Guidelines as submitted by the LEC.

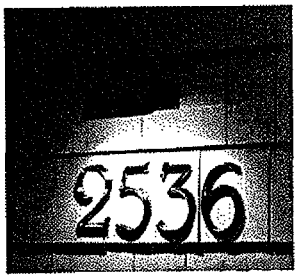
The undersigned, by affixing their signatures hereto, do hereby consent to, authorize, and approve of the foregoing resolutions this 15th day of October, 2009.

R.D. Tucker, President

Ray Norris, Director

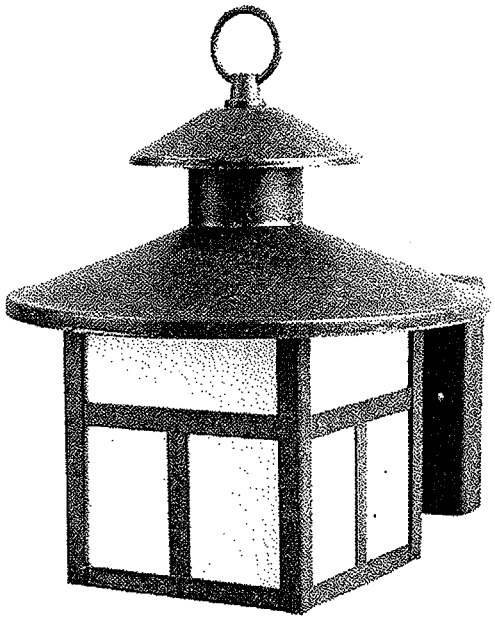


Illuminator
Solar Address Lamp
$32.99 at TARGET



Solar Address Light
$24.97 at Home Depot
Model # G2018-1 Part # G2018-1

APPROVED HOUSE NUMBER LIGHTING
LOWES

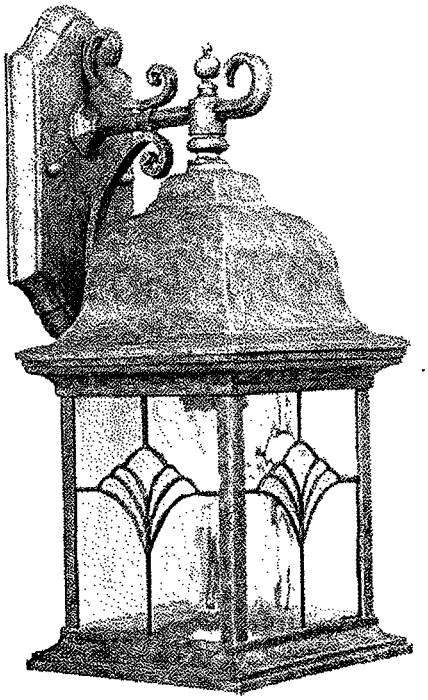


ITEM # 24236 MODEL: LO2225BR

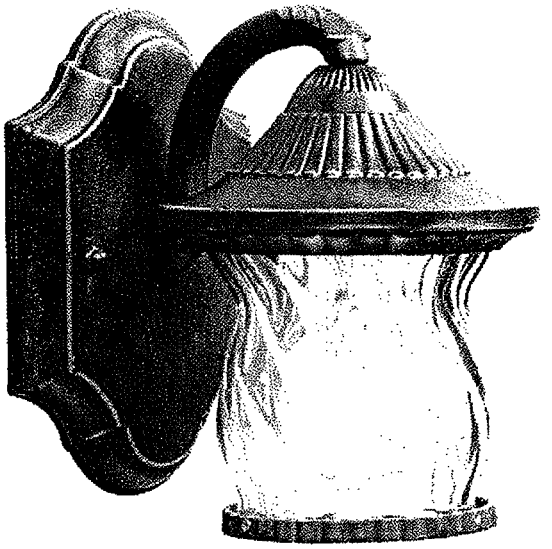
ITEM # 24232 MODEL: LO2221RT

APPROVED HOUSE NUMBER LIGHTING

HOME DEPOT



STORE SKU #397540 MODEL # P5995-50



STORE SKU # 876378 MODEL # 002-33022S-ORB

ACCCA

Resolution
of the
Board of Directors
of
Anthem Country Club Community Association, Inc.

Subject: **Awnings**

Submitted by: **Anthem Country Club Lifestyle Enhancement Committee**

The following resolution was duly adopted by the Board of Directors of the Anthem Country Club Community Association, Inc., (Association) at a regular meeting of the Board of Directors (Board) held on January 21, 2010.

WHEREAS, The Anthem Country Club Lifestyle Enhancement Committee recommends that the Design Guidelines be amended to state the prohibition of striped awnings. Awnings are permitted in side and rear yards only. The color should match the color scheme of the house and be constructed of canvas other woven material be of a solid color. Metal or wood frames for awnings and canopies must match either the dominant or trim color of the house, white is not permitted.

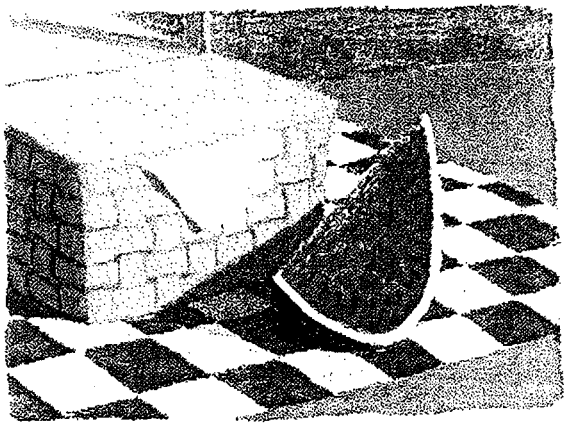
THEREFORE, BE IT RESOLVED, that the Anthem Country Club Community Association, Inc. Board of Directors agrees to change the Design Guidelines to prohibit the use of striped awnings throughout the Anthem Country Club Community Association.

The undersigned, by affixing their signatures hereto, do hereby consent to, authorize, and approve of the foregoing resolutions this 21st day of January, 2010.

R.D. Tucker

Jo-Ann Greenstein

ANTHEM PARKSIDE



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BY DEL WEBB

COMMUNITY RESIDENTIAL DESIGN GUIDELINES

Anthem Parkside

Community Residential Design Guidelines

Ver 1.11 9-30-09

ANTHEM COMMUNITY
RESIDENTIAL DESIGN GUIDELINES
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I. INTRODUCTION

A. PHILOSOPHY

Anthem is planned as a self-contained and self-sustaining community with diverse neighborhoods in several interconnected "villages" providing a broad spectrumof housing, commercial and employment opportunities and a mix of income levels, lifestyles and living arrangements. In Anthem, Del Webb (the original builder) has incorporated its many years of planning and development experience in applying new criteria to the development of this master planned community.

Anthem will develop over many years. Its development philosophy, goals and objectives have been crafted to guide development and design well into the future in a way that accommodates the full spectrum of community needs, including custom and conventional builders, future multifamily units, and all types of non-residential/commercialand employment activities. All participating builders are required to adhere to Anthem's philosophy of minimum visual impact and preservation and maintenance of the desert ecosystem.

These Design Guidelines provide an overall framework for 1) achieving visual harmony with the natural environment by striving for minimum visual impact of the buildings on the landscape; 2) enhancing harmony within the built environment by stimulating a natural, agreeable and appropriate diversity of style; 3) advancing biological harmony with the natural environment by integrating man and his needs into the existing desert ecosystem; and 4) establishing a review process appropriate to ongoing development and changes within the community.

MISSION STATEMENT

The mission of the original builder in development of Anthem was to create a sustainable community that accommodates its growth responsibly on social, economic and environmental levels; to operate on a set of shared values, engendering a pride of place and sense of heritage; to reduce the negative effects of development on the environment; to utilize a philosophy of minimum visual impact of the built environment on the Sonoran Desert; and to become a community that contributes positively to the region and exists in harmony with surrounding communities.

B. OVERVIEW OF GUIDELINES

The Anthem Parkside Community Residential Design Guidelines ("Design Guidelines") provide an overall framework for community development and progress in an orderly and cohesive manner, implementing planning and design concepts which are required by regulatory agencies and desirable to its residents. The Design Guidelines include minimum standards for the design, size, location, style, structure, materials and color of architectural improvements and landscaping, and relevant criteria for the construction or modification of all improvements made by any party other than the original builder. They also establish a process for the judicious review of proposed improvements or alterations. However, the Design Guidelines are not the exclusive basis for decisions of the Architectural Review Committee, and

compliance with the Design Guidelines does not guarantee approval of any application.

The Design Guidelines have been prepared by the original builder and adopted by the Anthem Community Council (the "Council") for application throughout the Anthem residential community. The Anthem Parkside community may be subject to additional guidelines, provided such additional guidelines may not be in derogation of these Design Guidelines. Such additional design guidelines may be promulgated in accordance with Article IV of the Declaration of Covenants, Conditions, and Restrictions for Anthem Parkside ("Anthem Parkside Declaration"). Any reference to the "Declaration" in these Design Guidelines shall refer to the Anthem Parkside Declaration. All capitalized terms shall be given the meanings ascribed to them below or in the Declaration of Covenants and Easements for Anthem ("Community Covenant"), the Declaration, or any supplements or amendments thereto, unless the context requires otherwise. The appropriate Reviewer will administer the Design Guidelines pursuant to the Declaration. The Reviewer of modifications within the Anthem Parkside Community shall be the Parkside "Architectural Review Committee"(A.R.C.).

In the event of conflict between these Design Guidelines, the Declaration, any other declaration of covenants or restrictions, and any governmental ordinance, building code or regulation, the more restrictive standard shall prevail.

C. DEFINITIONS

1. "Visible From Neighboring Property"

"Visible from neighboring property" means visible to a six foot tall person standing at ground level on any part of the neighboring property at an elevation no greater than the elevation of the base of the object being viewed.

2. "Neighboring Property"

"Neighboring Property" shall include a Lot, Common Area, or other Property, located in any direction from the Lot in question, that is either immediately adjacent to the Lot or is located in the general vicinity of the Lot (such that an item located on the Lot could be visible from the nearby Lot, Common Area, or other property).

3. "Commercial Vehicle"

A. "Commercial Vehicle" shall be defined as: (per addendum #6 October 14, 2003)

1. Trucks with ladders, racks, "cherry pickers", or any other appurtenances making the vehicle useable for business purposes;
2. Any vehicle with a rating of over one ton;
3. Or any vehicle over 230 inches long.

B. Vehicles NOT considered "commercial vehicles" are:

1) Any vehicle that governmental or quasi-governmental agency employees are required

to drive (i.e. Fire Chief, Police cruisers, utility company employees);

2) Cargo vans or pick-up trucks with no appurtenances described in A1) above.

D. MODIFICATIONS

No exterior construction, alteration, addition, or renovation to any structure or improvements on a Lot; no modifications to patios, and no landscaping, hardscape, walls or fences will be allowed on any Lot, without application to, and written approval by, the Reviewer. Each Owner is responsible for removing or otherwise curing, at its expense, non-complying and/or unapproved improvements. Any exterior modification made to a Parkside property without prior written approval by the Architectural Review Committee will be subject to a $300 fine and possible forced removal of the installation. If the unapproved modification is not approved or removed within thirty days of the date of violation, additional fines of $300 per month will be assessed until the modification is either approved or removed.

1. Architectural Character

a. The architectural design of all additions, alterations, and renovations to the exterior of any Dwelling Unit shall conform to the design of the original home in style, detailing, materials, and color.

b. The height of any addition to an existing dwelling unit shall not be higher than the original roofline.

c. All additions to Dwelling Units shall be built within the Building setback lines originally established for Anthem or as changed by the original builder with the requisite approval of Maricopa County or the City of Phoenix, regardless of more lenient requirements of any local governmental authority.

d. All materials used in the maintenance, repair, additions and alterations of any structure or improvement subject to review hereunder shall match those used in the initial construction of the improvement as to color, composition, type, and method of attachment. The Reviewer may allow substitute materials if it deems such materials to be compatible with the theme of the community.

e. No addition, alteration, or renovation of an existing Dwelling Unit, or any other activity on a Lot, may alter the established Lot drainage (as established by the original builder.)

f. No alterations or improvements that create or provide a flat, non-draining roof surface may be made. All roofs must drain to the ground solely within the Lot area and shall not drain directly onto a neighboring property.

g. All building colors and materials shall meet the provisions of the guidelines and all other applicable laws for the upper desert and hillside landforms.

h. Bright untarnished copper and other metallic surfaces shall be treated to reduce reflections.

i. All maintenance and repairs of existing homes shall be consistent with the Community-Wide Standard.

2. **Prohibited Structures:**

The following structures shall be prohibited in Anthem Parkside:

a. Clothes lines or clothes poles.

b. Detached garages.

c. Tents of a permanent nature.

3. **Ancillary Equipment**

a. Roof-mounted equipment (including without limitation mechanical and air conditioning) is prohibited. No solar heating equipment or device is permitted outside the Dwelling Unit except such devices whose installation and use is protected by federal or Arizona laws. Notwithstanding such protection, an application for such equipment or device must be submitted for approval under Article IV of the Declaration prior to installation and approval, and approval will be granted only if:

i First, such equipment or device is designed for minimal visual intrusion when installed (i.e. is located in a manner which minimizes visibility from the street or an adjacent Lot and is consistent with the Community-Wide Standard); and

ii Second, the equipment or device complies to the maximum extent feasible with the Design Guidelines within the confines of the applicable governmental regulations.

b. Satellite dish antennas of one meter or less in diameter may be erected on any Lot. The satellite dish antenna is permitted in the rear or side yard, below fence wall level, if reception is available at that location. The preferred placement of the satellite dish is in the rear yard so long as an acceptable quality signal can be received at that location. If an acceptable quality signal cannot be received in the rear yard placement in the front of the house or front yard is permissible. The satellite dish shall be of a color compatible with the color scheme of the house (painting of the dish and exposed wires may be required so long as the painting of the satellite dish will not void the manufacturer's warranty or affect the signal). When placed in the front of the house or the front yard, screening will be required when appropriate if it does not interfere with reception and constitute an

unreasonable expense.

Any transmission cable from a receiver to the house must be underground.

E. ORIGINAL CONSTRUCTION

The term original construction shall include all improvements, landscaping, walls and fences installed by the original builder. All other improvements, landscaping, wallsand fences are modifications and will require approval of the Reviewer prior to start of construction.

Applications for approval of construction shall be submitted to the appropriate Reviewer in accordance with procedures set forth in the Declaration and these Design Guidelines.

II. DESIGN GUIDELINES (ANTHEM PARKSIDE)

Nothing in these guidelines is intended to waive the right of the Reviewer to approve or deny any modification of property within Anthem pursuant to Article IV of the Declaration of Covenants, Conditions and Restrictions for Anthem Parkside. The detail provided herein is intended to be a guideline only. No work may commence until after approval of the Reviewer has been obtained pursuant to Section III of these Design Guidelines.

A. LANDSCAPING REQUIREMENTS AND GUIDELINES

Each Owner shall landscape their front yard and public right-of-way area(s) adjacent to their respective Lot, unless landscaping is installed by the original builder, within a period of ninety (90) days from close of escrow or the issuance of a certificate of occupancy, whichever is later, and shall landscape their rear yard within a period of 180 days from close of escrow or the issuance of a certificate of occupancy, whichever is later. All landscaping shall comply with the following minimum requirements

1. The use of native or **near-native** compatible drought-tolerant species from the attached "Approved Plant List" (Appendix B) is required for all yard landscaping. Only species listed in Appendix B are permitted.

2. All trees must be planted a minimum of five (5) feet from all property lines and/or perimeter property line walls. Trees with shallow and/or invasive roots systems planted within five (5) feet from concrete walks and walls shall include root barriers. All other landscape plantings must be installed a minimum of three (3) feet from all property lines and perimeter property line walls. All landscape plantings shall be planted a minimum of 18" away from structures.

3. A fully automatic underground wateringsystem shall be used to maintain all landscape plantings. Irrigation systems that use drip emitters instead of spray heads or bubblers are highly encouraged. When it is necessary to use sprinklers, care should be taken to avoid overspray on hardscape, structures, walls, fences and windows.

4. The Owner must cover all areas of the Lot with landscape materials (plants, inert materials, etc.) Bare areas are prohibited

Homeowners should attempt to create a landscape with as mature an effect as possible at the time of installation. No unusually immature or undersized plantings will be permitted.

Plant compositions should employ a variety of sizes of plants when planting rather than all one size. This creates immediate interest in the landscape scene and helps avoid the look of undersized plantings. Tree and shrub selection should take into account the natural mature height and canopy of the species selected to avoid heavy pruning. All trees and plants must be contained on Owner's lot. Planting schemes should include species from the group listed below. The A.R.C. realizes that plant sizes and relationships will differ depending on the species chosen and will review each case individually. Plant types shown below are intended to include accent plants, vines, and ornamental grasses in addition to shrubs and groundcovers (refer to the Approved Plant List, Appendix B). These plants should be incorporated into

the most appropriate size category.

Suggested Plant Size/Type Ratios:

Groundcovers:	Low, wide spreading plants up to 18" or 2' in height.	(35%)
Small Plants:	Plant materials, which are under 2' inheight and are Not classified as ground covers.	(15%)
Medium Plants:	Plant materials that range between 2' and 4' in height.	(10%)
***Large Plants:**	Plant materials above 4' in height.	(30%)
***Trees:**	24" Box	(5%)
Cacti:	Sizes vary from smallto large.	(5%)

*Placement of larger shrubs and trees should be carefully considered so as not to overpower small spaces, block views from windows, or create a situation where heavy pruning is required to keep the plant size within the space allotted.

The use of multi-trunk trees is encouraged over single trunk trees within front yards. This adds to the informal, natural look along the streetscape. Single trunk trees should be used within narrow sideyards where canopies can clear structures and notrestrict circulation.

Front yard landscape and maintenance shall be continuous from the back of curb, or the back of sidewalk, whichever is appropriate, and shall be the responsibility of the Homeowner.

Mature growth of plant materials shall not encroach onto adjacent lots or onto sidewalks or restrict pedestrian circulation. To maintain sight lines along the street corridors, plant heights within the Right-of-Way easements should not exceed two (2) feet. The A.R.C. may impose setback requirements to address the unique characteristics of any lot in relationship to street, other lots, open spaces, or any other visible relationship to the lot in review.

Extremely Small Front Yards:

The two-tree minimum may be waived for lots with front yards less than 1,100 square feet in area. The area is determined by the square footage of the landscape area in the front yard. This area excludes driveways and sidewalk areas but does include both sides of the driveway. Small front yards are broken down into two categories based on square footage:

Landscape Area less than 600 Square Feet.

If the square footage of the landscape area of your front yard is less than 600 square feet, you must plant at least one of the following along with the appropriate minimum small plants indicated on pages 10 and 11:

1. 24" Box Tree from the Approved Plant List
2. 15 Gallon Size Tree from the Approved Plant List
3. Saguaro (Carnegiea Gigantee) of at least 15 gallon size and six feet in height

4. Ocotillo (Fouquieria Splendens) of at least 15 gallon size and six feet in height

Landscape Area Between 600 Square Feet and 1,100 Square Feet

If the square footage of the landscape area of your front yard is greater than 600 square feet but less than 1,100 square feet, you must plant at least one of the following along with the appropriate minimum small plants indicated on pages 10 and 11:

1. 24" Box Tree from the Approved Plant List
2. 15 Gallon Size Tree from the Approved Plant List

A Saguaro (Carnegiea Gigantee) or an Ocotillo (Fouquieria Splendens) May be used in addition to one of the two trees listed above but may not be substituted for one of the trees.

All other yards are classified into four (4) categories: interior Lot, corner Lot, cul-de-sac Lot and over-sized Lot. Minimum planting requirements for each category are as follows:

INTERIOR LOT

Front yard:
Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Five (5) ground cover; one (1) gallon size
Three (3) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard:
Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

CORNER LOT

Front yard:
Twelve (12) shrubs; one (1) gallon size
Six (6) shrubs; five (5) gallon size
Five (5) ground cover; one (1) gallon size
Three (3) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard:
Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

Front yard area for Corner Lots includes the front and street side yard area for minimum plant requirements.

CUL-DE-SAC LOT

Front yard:
Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Five (5) ground cover; one (1) gallon size

Three (3) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard: Nine (9) shrubs; one (1) gallon size
Six (6) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

OVERSIZED / LARGE LOT (OVER 9,200 S.F.)

Front yard: Ten (10) shrubs; one (1) gallon size
Seven (7) shrubs; five (5) gallon size
Seven (7) ground cover; one (1) gallon size
Four (4) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard: Ten (10) shrubs; one (1) gallon size
Six (6) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

Additional plants may be requiredin large Lots at the discretion of the A.R.C.

Substitutions:

Except for Extremely Small Front Yards, the following substitutions may be made:

A five (5) gallon plant may be substituted with two (2) one (1) gallon plants.
A one (1) gallon plant may be substituted with one (1) five (5) gallon plant.
A fifteen gallon tree may be substituted with either a Saguaro (Carnegiea Gigantee) or an Ocotillo (Fouquieria Splendens) provided that the plant is a minimum of fifteen (15) gallon and six (6) feet in height.

Variances to these minimums may be made by the A.R.C. depending on lot size. In addition, for corner Lots only, any public right-of-way area(s) adjacent to the Lot will be included in the front yard area in applying minimum requirements. Landscaping plans for side yards adjacent to driveways shall include a minimum of one five (5) gallon and two one (1) gallon plants. Having granite only in this area is prohibited. All plant material must be selected from the approved plant list (Appendix B), no exceptions!

The prohibited plant materials set forth in Appendix C include species with characteristics which are potentially destructive to the natural areas, and native plants; and by reason of profuse and noxious pollen, excessive height, weed-like characteristics of excessive growth, high water demands and other similar traits may not be used within Anthem. Under no circumstances is it permissible to plant a prohibited plant or allow it to remain. This includes potted plants.

All other yards are classified into four (4) categories: interior Lot, corner Lot, cul-de-sac Lot and over-

sized Lot. Minimum planting requirements for each category are as follows:

INTERIOR LOT

Front yard: Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Five (5) ground cover; one (1) gallon size
Three (3) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard: Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

CORNER LOT

Front yard: Twelve (12) shrubs; one (1) gallon size
Six (6) shrubs; five (5) gallon size
Five (5) ground cover; one (1) gallon size
Three (3) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard: Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

Front yard area for Corner Lots includes the front and street side yard area for minimum plant requirements.

CUL-DE-SAC LOT

Front yard: Eight (8) shrubs; one (1) gallon size
Five (5) shrubs; five (5) gallon size
Five (5) ground cover; one (1) gallon size
Three (3) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard: Nine (9) shrubs; one (1) gallon size
Six (6) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

OVERSIZED / LARGE LOT (OVER 9,200 S.F.)

Front yard: Ten (10) shrubs; one (1) gallon size

Seven (7) shrubs; five (5) gallon size
Seven (7) ground cover; one (1) gallon size
Four (4) accents; one (1) gallon size
One (1) tree; 24" box size
One (1) tree; fifteen (15) gallon size

Back yard: Ten (10) shrubs; one (1) gallon size
Six (6) shrubs; five (5) gallon size
Two (2) trees; fifteen (15) gallon size

Additional plants may be requiredin large Lots at the discretion of the A.R.C.

Substitutions:

A five (5) gallon plant may be substituted with two (2) one (1) gallon plants.
A one (1) gallon plant may be substituted with one (1) five (5) gallon plant.
A fifteen gallon tree may be substituted with either a Saguaro (Carnegiea Gigantee) or an Ocotillo (Fouquieria Splendens) provided that the plant is a minimum of fifteen (15) gallon and six (6) feet in height.

Variances to these minimums may be made by the A.R.C. depending on lot size. In addition, for corner Lots only, any public right-of-way area(s) adjacent to the Lot will be included in the front yard area in applying minimum requirements. Landscaping plans for side yards adjacent to driveways shall include a minimum of one five (5) gallon and two one (1) gallon plants. Having granite only in this area is prohibited. All plant material must be selected from the approved plant list (Appendix B), no exceptions!

The prohibited plant materials set forth in Appendix C include species with characteristics which are potentially destructive to the natural areas, and native plants; and by reason of profuse and noxious pollen, excessive height, weed-like characteristics of excessive growth, high water demands and other similar traits may not be used within Anthem. Under no circumstances is it permissible to plant a prohibited plant or allow it to remain. This includes potted plants.

Artificial plants (other than artificial turf) are prohibited in the front yards and rear yards where Visible From Neighboring Property (see Ornamentation).

Plant Legend:

Prepare and submit a plant legend with all submittals. The plant legend must reflect the actual plant materials, size, and quantities depicted on the landscape plan. Example of plant legend format is shown on the next page. DRAW ALL PROPOSED PLANT MATERIALS ON A SCALEABLE PLAN. INDICATE THE LOCATION OF EACH PLANT SHOWN ON THE PLANT LEGEND ON THE PLAN. PLANS TO BE A MINIMUM OF 81/2" X 11" AND A MAXIMUM OF 11" X 17".

Rose, vegetable, and or herb gardens are permitted in the rear yard onlywhen planted in a container or contained area not to exceed 150 square feet and 5 feet in height from finished grade of home site. Planted area must be a minimum of 15 feet from view fencing and vegetable gardens screened from view of street and/or adjoining properties.

EXAMPLE OF A PLANT LEGEND:

Symbol	Quantity	Size	Botanical Name	Common Name

B. INERT GROUND COVER

All granite shall be a minimum of ½ "Screened" or larger and be applied as a 2 inch layer minimum. The color must be selected from the following approved color list:

Apache Brown
Cinnamon Brown
Saddleback Brown
Aztec Brown
Baja Brown
Madison Gold
Mojave Gold
Dutchman's Gold
Apache Rose
Sedona Red
Ruby Red
Desert Coral
New River Cobble

In Unit 81 only, ¼" minus granite may be used as driveway access to the rear yard gate so long as it matches the color of the rest of the granite installed in the yard.

White rock and any rock with coatings of any kind are prohibited. No artificially colored rock will be permitted as ground cover. Ground cover, inert material and any other landscaping softscape or hardscape shall not be used to spell out or form names, nicknames, initials, names of states or cities, athletic teams, slogans, states, emblems, geometric patterns or any other word, image, symbol or communication.

Stones and boulders shall be limited to those geologic types, which are indigenous to the site. **Boulders shall be buried into the grade a minimum of 1/3 of the height of the boulder to enhance a more natural appearance.** Native rock or river rock may be used in drainage swales

The use of pea gravel is limited to the use as ground cover in a children's play area and/or a dog run in the rear yard only. The maximum allowable area on any one lot is 300 square feet.

C. TURF

1. NATURAL TURF/SOD

A maximum of 20% of the front Lot area, including the driveway, may be planted in turf. Front Lot area is defined as that area between the front Lot line and the house front, as extended to each side Lot line. In addition, no turf may be placed within the public right of way (R.O.W.) or tract area. Only non-seeding grasses are permitted, and **if a warm season grass that goes dormant in winter is used, overseeding with Rye is required.** Turf in enclosed rear yards is permitted provided that no turf or spray irrigation shall abut walls or fences. Overseeding would be required if rear yard is visible from adjacent properties. Turf/sod and the associated irrigation/sprinkler system are not to be located closer than three (3) feet to all walls, fences, and structures to avoid overspray.

2. ARTIFICIAL TURF

Being in a desert environment, water conservation is an important priority. Because of this, the Architectural Review Committee (ARC) and the Board of Directors will consider requests to install artificial turf on lots under the following conditions:

The ARC and/or Board of Directors reserves the right to require removal/replacement of any area of artificial turf which does not meet the standards set forth by these guidelines.

Artificial turf must be professionally installed by a licensed representative of the manufacturer and covered by a manufacturer's warranty of at least seven years. The installation contractor must be licensed, bonded and insured.

Any request for installation of artificial turf must include a minimum of a one square foot boxed sample (including infill) of the exact finished turf product, along with the manufacturer's product specifications. Allowable tufted face weight (Pile weight) range is between 30 ounces to 78 ounces per square yard. The maximum width of the stitch gage is 3/4 inch.

A minimum of 3 inches of compacted aggregate material shall be installed under the artificial turf surface (sub-base materials).

Artificial turf must be installed in such a way as to appear seamless and uniform. All

seams must be glued. Only natural colors are acceptable, to remain unchanged from the natural green lawn appearance, and subject to approval by an ARC reviewer.

The length of the artificial turf shall be minimum of 1-½ inches, not to exceed 2 1/4 inches.

Only turf requiring infill installation will be allowed. Infill material installation shall be according to turf manufacturer specifications or based upon standard industry guidelines. Minimum infill installation shall be 2 pounds per square foot.

Artificial turf must be maintained in like-new condition, color, and uniformity with no tears or seams visible. Any fading or deterioration or wear patterns and incidental damage of the product will necessitate replacement.

Artificial turf may not encompass more than 20% of the front yard, and utilize a header (border) as needed. See section II D of the Design Guidelines for specific header specifications.

Replacement of the artificial turf must be pre-approved by the Architectural Review Committee to ensure like type, color and quality of the replacement product.

Artificial turf (putting greens) may be permitted in the rear yard. Artificial turf may not exceed 75% of the landscape area, cannot be of carpet material and may be no closer than three feet to property line walls. A sample of the product must be submitted to the Reviewer along with the Application for Approval. All artificial turf must be maintained in "like new" condition and must be replaced upon fading or deterioration.

D. HEADERS

Headers are continuous materials that separate turf from other planter or inert areas. Headers shall be of concrete or masonry material, may not exceed 12 inches in width and shall be flush where they abut other paved areas. Rock, railroad ties, plastic, steel, aluminum and redwood header boards are prohibited.

E. IRRIGATION

All landscape irrigation shall be underground, automatic, and low water use drip systems, except for turf or flowerbed areas, which may use spray systems. Overspray onto public sidewalks or streets is prohibited. While native and arid region plant materials require minimal water, the specific requirements vary from plant to plantand location to location.

With the exception of side yards adjacent to public R.O.W., Owners may not irrigate native landscape areas beyond residential walls. The native vegetation in these areas does not require additional water and irrigating these areas can lead to disease and death of the native plants, particularly cacti, andaid in the spread of undesirable plant species or weeds. The Association may from time to time install temporary irrigation systems if needed to establish new vegetation areas. Native plants need regular water during the establishment period. Transplanted desert

trees may require irrigation for several years before developing a large enough root system to survive sustained periods of drought. Other small plant materials establish in a year or less.

F. WALLS & FENCES

Unless installed by the original builder, walls and fencing that totally enclose any portion of the front lot areas are prohibited, with the exception of courtyard entries which are limited in height to four (4) feet and must be stuccoed and painted to match the color scheme of the house. **All other front yard fencing will be limited to a maximum height of four (4) feet.**

Developer provided walls shall not be permanently altered or modified in any way.

Homeowner installed retaining walls shall not exceed three (3) feet in height from the finished grade in the front yard or four (4) feet in height in the rear yard. Walls that are "visible from neighboring properties" must be painted to match the color scheme ofthe house.

Unless otherwise specified, maximum height of walls shall be measured from the finish ground elevation on the highest side of the submitted wall.

Cut or fill slopes along the exterior of the wall shall be smooth and taper gradually to match existing grades.

Retaining walls, which are partially belowthe finished grade or walls used as planters, shall be properly moisture proofed to avoid unsightly water staining. If staining occurs, the homeowner is responsible for the complete repair of theproblem.

Alterations to view fencing will be considered on an individual basis. The homeowner is required to submit detailed drawings along with photographs of the existing fencing to the A.R.C.

The original builder view walls may be altered at negative edge pools only to enhance the effect of the pool. All pool access and fence requirements must be maintained as determined by local, county, state, and national authorities. Any modifications must be approved by the A.R.C. to be reviewed on a case-by-case basis, and will be done so at the sole expense of the homeowner.

The installation of a wildlife (rabbits, rodents, snakes, etc.) barrier on rear yard perimeter view fencing is allowed. The barrier can be no greater than 24 inches in height and must be painted to match the color of the view fencing. The recommended material for the barrier is ½"inch hardware cloth. Installation of the barrier on rear yard party wall view fencing requires neighbor consent and must be temporarily installed with wire so that it is removable for fence maintenance.

Any wrought iron fencing must be of a painted or powder coat finish in an acceptable color approved by the A.R.C.

No chain link or similar material or wood, or split rail, including picket fences, shall be used as fence material on lots.

Builder provided "theme" walls, perimeter walls, and specifically engineered walls cannot be modified in any way.

Variance in wall height may be granted by the A.R.C. for walls adjacent to public rights of way. Prior to granting a variance, the A.R.C. must be provided with letters of consent from all neighbors where the modified wall is "visible from neighboring property".

Any alteration, modification, addition to, or extension of a common/party wall requires the consent of the homeowner of the adjacent lot or lots. This AGREEMENT OF CONSENT TO WALL MODIFICATION must be completed in full, dated, signed, and notarized by all involved parties. This consent form is to be included as part of the request at the time of submittal along with the Appendix A request form and all other required documents.

G. ORNAMENTATION

Exterior ornamentation, home decorations, , artificial plants, signs (other than Real Estate signs, home security monitoring signs, and signs that cannot be prohibited by law), topiary, and any other type of ornamentation are prohibited. Bird baths and bird feeders are permitted in the rear yards only.

H. WATER FEATURES

All water features, whether built on site or purchased fully assembled, are not allowed in front yards (except in walled courtyard areas where they are **limited to 4'-0" in height.**) No fountain or shower is allowed to drain directly into a wash corridor or Common Area. Water features in rear yards are allowed but must not exceed six (6) feet in height and must be a minimum of (5) feet from all lot lines.

Ponds and/or streams will be reviewed on a case-by-case basis. No tropical or water plants will be permitted. No sitting or standing or stagnant water will be tolerated. Continued maintenance is required for aesthetic and health reasons.

Water features must match the color scheme of the home and be indigenous to the aesthetics of Anthem. In no instance shall any portion of the perimeter wall be removed or altered, including but not limited to removal in connection with the installation or construction of a water feature. An owner in violation of this provision shall be subject to monetary penalties, suspension of voting rights and Common Area Rights, and other sanctions permitted under the Declaration without prior approval of the A.R.C.

A water feature, pond and/or stream may not be drained or backwashed into the washes, common landscape areas, drainage ways or streets. All water must be retained on owner's lot or discharged into the sewage system.

I. SWIMMING POOLS

Swimming pools and hot tubs are not allowed in any front yard. Temporary or above-ground

pools/spas larger than 8 feet in diameter are not allowed. Swimming pools must conform to County and/or City regulations. Set back for pool decking must be a minimum of five (5) feet from all walls and fences with landscaping between the decks and walls. **The grading and drainage of lot must not be altered from original site plan.** All pool equipment shall be screened from view from streets and/or adjoining properties. Pool equipment screening shall also be designed to mitigate noise. Slides and diving boards or other accessories cannot exceed six (6) feet in height and must be a minimum of five (5) feet from all lot lines.

In no instance shall any portion of a perimeter fence be temporarily removed or altered, including but not limited to removal in connection with the installation or construction of a swimming pool without prior approval of the A.R.C. Any Owner in violation of this provision shall be subject to monetary penalties, suspension of voting rights and Common Area use rights, and other sanctions permitted under the Declaration.

A pool may not be backwashed into the washes, common landscaped areas, drainage ways or streets. All backwash water should be retained on the Owners Lot or discharged into the sewage system.

J. HARDSCAPES

Additional pavement or garden walls other than those built by the original builder must be approved by the A.R.C. Any additional pavement areas in the form of pavers, concrete, blacktop, flagstone, brick, tile or wood decking must be approved. No bollards, chains or rope will be allowed as part of the front yard landscaping.

1. Walkways and Driveways

Design and colors on walkways and driveways other than normal concrete surfacing must be submitted to the A.R.C and approved in advance of construction.

Walkways in the front yard may be concrete (including aggregate), flagstone, imitation flagstone, or tile of a natural, neutral earth-tone color. No decomposed granite walkways are allowed in the front yard. The preferred walkway width in Parkside is four (4) feet. Wider widths up to eight (8) feet may be approved on an individual basis.

As an option, driveways and walkways in front yards can be constructed of pavers, exposed-aggregate or colored concrete. The color for pavers and colored concrete must match or complement the color scheme of thehouse. Concrete staining is not allowed. Pavers used in and adjacent to driveway areas should be set in concrete rather than sand.

Excessive use of concrete (as determined by the A.R.C.) in front, street side, and back yards will not be allowed.

Driveways and walkways may be overlaid with an epoxy coating. The only approved colors for Epoxy Coatings are "Dover Sky " and "Pewter". Only Matte type finishes are permitted. No gloss sealants or glossy protective finishes are allowed. The surface finish

must be maintained in "like new" condition by the homeowner. Contact the HOA for manufacture information. Concrete painting or staining is not allowed.
"Commercial Vehicles" are not allowed to be parked in the driveway overnight or on weekends without a permit from the HOA.

2. Driveway/Walkway Extensions

Concrete driveway extensions will be reviewed on an individual basis. Concrete or other approved materials may be extended from the existing driveway or public sidewalk to the rear yard for access only. Drives may not exceed 8 feet in width, and must have a minimum of 24" of landscaped area on either side of the drive. The driveway may be attached to the existing driveway, and is prohibited from being used to park vehicles, mobile homes, trailers, campers, trucks, golf carts, bicycles, recreational vehicles, watercraft, motorcycles, "Commercial Vehicles" or any other operable or inoperable vehicle. The driveway may be constructed of concrete, pavers, or other non-porous materials as determined by the A.R.C.

K. AWNINGS, CANOPIES AND SUNSHADES

Awnings, canopies, and sunshades are allowed in rear yards only. The awning or canopy shall be constructed of canvas or other woven material and its color shall match the color scheme of the house (solid colors only, no patterns allowed). Rigid metal shutters are permitted, only in the rear and side yards, and must match the color scheme of the house. No rigid metal or awnings are permitted in front yards. Metal or wood frames for awnings and canopies must be painted to match either the dominant or trim color of the house. All awnings and canopies are to be maintained in "like new" condition. Owners will be required to replace awnings and canopies that show signs of weathering. Sunshades may be supported on Metal poles that match the color of the home. The color of the sunshade, or sail, must match a color onthe home.

L. BASKETBALL GOALS

Permanent basketball goals are prohibited in front yards. Permanent basketball goals are allowed in rear yards but may not be lighted. Portable basketball goals may be used on a Lot without prior approval, but must be stored in the backyard overnight or otherwise when not in use.

M. COLOR SCHEME

Exterior paint color must be selected from the natural desert color palette All paint color changes must be submitted for approval by the A.R.C. All fabric, tile and masonry colors must match or complement the color scheme of the house for which they are being used.

N. FLAG DISPLAYS

In conjunction with the Planned Community Act section 33-1808 the flag display guidelines for the Anthem Parkside Community Association are amended

a. Flags must be flown in conformance with the Federal Flag Code. In addition, only the following flags can be displayed:the United States flag, the State flag of Arizona, POW MIA flag, flags of the Arizona Indian Nations, military service flags of the United States Army, Navy, Air Force, Marine Corps, Coast Guard.

   Pursuant to Section 3 c of the Federal Flag Code, no flag shall be placed above the United States Flag.

b. The maximum size of any flag shall be 4 (four) feet by 6 (six feet).

c. The maximum height of a permanent, removable, or freestanding pole shall be 20 feetor the height of the roof peak, whichever is less.

d. Wall mounted flag poles shall be a maximum of 5 (five) feet long with the attaching brackets painted to match the attachment area andwill not require prior approval.

e. All poles and flags must be maintained in excellent condition according to the United States Flag Code, Title 36, U.S.C., Chapter 10.

f. Only one permanent, removable, wall mounted, or freestanding pole will be permitted per residence or lot.

g. It will be the responsibility of the homeowner of the lot on which the flag is displayed to do so with the proper respect and flag etiquette.

O. GATES, COURTYARDS, AND SIDE YARD

Gates are to be constructed of a metal/wrought iron/wood combination conforming to the design details available from the A.R.C. Wood slats are to be painted to match the color scheme of the house or natural wood stained as approved by the A.R.C. Wrought iron gates for courtyards must be of a painted or a powder coat finish in an acceptable color approved by the A.R.C. All metal parts and hardware are to be painted to match the color scheme of thehouse. Double gates are allowed when approved by the A.R.C. No gates will be allowed on sides of Lots for which access would cross a Vehicular Non-Access Easement (V.N.A.E.). No gate access will be permitted to the golf course or open space.

P. GAZEBOS RAMADAS and PATIO COVERS

Gazebos ramadas, and patio covers are allowed in rear yards only and may not exceed 10 feet in height from ground level. A gazebo/ramada must be painted to match the color scheme of the house or have a natural wood finish as approved by the A.R.C. A gazebo/ramada shall be located a minimum of five (5) feet from any Lot line. Screening of such structures with appropriate landscaping and thorough consideration for all neighbors is required. Unless constructed as a trellis, a gazebo/ramada roof "Visible From Neighboring Property" shall be of tile roofing material identical to the home. The roof supports shall be masonry columns treated with stucco, decorative masonry or stone and be a minimum of 12" wide. A trellis style roof may be supported by wood or

aluminum posts that are a minimum of six (6) inches in width. Wood or aluminum trelliswork shall be a minimum of 3" x 3".

Q. LIGHTING

1. Overview

All exterior lighting is to be understated. Emphasize downlighting as opposed to uplighting; downlighting has less impact on the night sky as light is cast downward rather than spilling into the nighttime sky. Anthem is a desert community and we should try to preserve the night sky as a community amenity of rural country life. All lighting should be architecturally integrated to structures.

2. Exterior - High Voltage

Exterior lights shall be mounted a maximum of 12 feet high on building surfaces and the light source shall not be Visible from Neighboring Property. Fixtures except those immediately at the main entrance of a residence should be shielded from view (under building eaves, recessed in niches, behind walls or landscape) and painted to match the color of the house where attached. Exposed bulbs and any lighting which produces excessive glare or that shines on another Lot are not allowed. Security lighting including motion-activated floodlights shall, at a minimum, be located beneath eave overhangs. Use of colored lenses or bulbs is not permitted except as holiday decoration or used exclusively as a bug deterrent.

3. Exterior – Low Voltage

Low voltage lights may be used to accent plants and structures as well as for safely seeing walkways and obstacles at night. Please refer to section 5 below for more information on the use of low voltage lights.

4. Holiday Lighting

Owners may display holiday decorations located or visible from outside their Dwelling Units if the decorations are of the kinds normally displayed in single family residential neighborhoods, are of reasonable size and scope, and do not disturb other Owners and residents by excessive light or sound emission or by causing an unreasonable amount of spectator traffic. Holiday decorations may be displayed in season only from November 1 to January 15 and, during other times of the year, from one week before to one week after any nationally recognized holiday

5. Plant Lighting

Landscape lighting is to be low voltage. Low voltage up lighting may be used to accent plants and structures. Walkways may be illuminated from down lighting attached to a branch. Under no circumstances is wrap around lighting permitted or any other lighting attached to plants allowed, except as described in Holiday Lighting above.

R. PATIOS AND DECKS

Patios and decks may be constructed of wood, masonry, concrete or stone so long as the design and texture of the material is in harmony with the house. Paint color shall match the color

scheme of the house. Unless constructed as a trellis, a patio roof "Visible from Neighboring Property" shall be of tile or other approved roofingmaterial.

The maximum allowable height of a wood deck is 18" above existing finish grade. All patios and decking must be a minimum of five (5) feet from any property line wall.

Enclosed rear patios will be reviewed on an individual basis. Patios may be screened; using aluminum framed screening material, matching the existing trim color or the color of the main body of the home. No additional concrete, roofing material or structure may be built. Acceptable screening colors are black and tan. Exit doors are allowed for access to the rear yards, with the screened in patio submittal.

S. OTHER BUILDING FEATURES

1. Masonry Columns

Masonry columns shall be treated with stucco, decorative masonry or stone and be a minimum of 12" wide. Wood columns where permitted by the Reviewer shall be a minimum of 6" x 6" or 8" x 8" square. Wood trelliswork is permitted and shall be a minimum of 3" x 3".

2. Barbecues, Firepits and Fireplaces

Wood burning and/or gas built-in barbecue units or fireplaces mustbe contained in the rear yard. Site chimney elements to avoid obstructing views from inside the house or from adjacent properties and must be setback a minimum of five (5)feet from any side view fence panel and no more than eight (8) feet in height. Gas burning types of kivas are acceptable.

3. Rain Gutters

Rain gutters may be added to residences to prevent erosion of landscaped areas. All gutter installations must be configured to the appropriate Roof Drainage Plan for specific homes and elevations. In addition, they must be painted to match the home. Drainage shall not be conveyed onto adjacent properties.

T. PLAY EQUIPMENT

Children's play equipment must be located at least five (5) feet from adjacent Lots and may not exceed a platform height of six (6) feet with a maximum shading/roof height of 10 feet. Equipment "Visible From Neighboring Property" shall be painted to match the color scheme of the house (including slides and ladders) or have a natural wood finish. Any canvas awning shall be dark green or of a color matching the house (beige or tan; no stripes or multi colors allowed) and no flags are allowed. All structures shall be maintained so as to present a neat and clean appearance. Screening of such structures with appropriate landscaping and thorough consideration for all neighbors is required.
All play structures, including trampolines, shall be adequately anchored for safety.

U. SECURITY DOORS

Security doors must be of simple design, modest in ornamentation, and of a color compatible with

the residence. No exposed metal including wrought iron is permitted on doors or windows with the exception of security doors (not windows) as approved by the A.R.C. A sketch or photograph of the security door is required with the submittal.

V. STORAGE SHEDS

Storage sheds or similar structures are allowed in rear yards only, and are limited to a maximum height of 7' from ground surface to roof peak. They should be painted to match the color scheme of the house. If "Visible From Neighboring Property", storage shed shall be screened with landscaping. Roofing material to be approved by the A.R.C. Sheds shall be located a minimum of 5 feet from the property line.
Overly large storage sheds will not be allowed.

W. TENNIS COURTS/SPORTS COURTS

Tennis courts shall be painted green, tan or other earth-tone color, as available from the surface manufacturer. Fencing for tennis courts may be chain link if vinyl clad. Windscreen may be tan, or dark green. Lighting is subject to local municipal codes in addition to A.R.C. approval. All surfaces and structures shall be maintained so as to present a neat and clean like new appearance. Screening of such structures with appropriate landscaping and thorough consideration of neighbors is required.

X. WINDOWS

Reflective glass or window film with a visible light reflection rate of 20% or greater is not allowed for any window or skylight. Non-reflective glass of bronze or similar color may be used. In no event shall the interior or exterior of any window be covered with reflective material such as foil, or with paper, bed sheets or other temporary coverings. No exposed metal including wrought iron is permitted on doors or windows with the exception of security doors (not windows) as approved by the A.R.C.

Metal frame windows or skylights must have afactory applied color finish similar to the house color. Wood frames shall be painted to match the color scheme of the house. Shade screens on windows shall be of a color compatible with the house.

Y. SIGNS

Only real estate signs, home security monitoring signs and signs that cannot be prohibited by law are permitted. Garage Sale signs are permitted on the day of the sale **only in the Homeowner's front yard**. They must be removed by the Homeowner before dark.

III. APPLICATION AND APPROVAL REQUIREMENTS

A. GENERAL

Pursuant to Article IV of the Declaration, any Owner wishing to:

- Construct improvements,
- Modify or add to existing improvements (including painting),
- Install a pool, spa, or other water features,
- Construct or install walls, fences, or hard, permanent materials, such as paving, brick, masonry, wood trim, concrete, rocks, flagstone, outdoor barbecue, fireplaces, or other inert material ("hardscape"),
- Landscape (including original landscape not installed by original builder),
- Alter grading or drainage, or
- Placement of any object (i.e., lighting and decorations – except decorations as previously described)

Undertaking any of the above listed items requires that the owner shall first submit an application and such other materials as set forth in Section C hereof (a "Review Request") to the A.R.C., as described below, and receive approval of such committee prior to commencing construction. There are no exemptions or automatic approvals, with the exception that a submittal of an application and plans for repainting the exterior of a structure in its existing color is not required, if such existing color was previously approved by the Original Builder or Reviewer.

It shall be the responsibility of all Owners to comply with all standards and procedures within these Design Guidelines, as well as all requirements of the Declaration and any applicable Supplemental Declaration.

B. Architectural Review Committee Structure (A.R.C.)

Architectural and design review and control for Anthem Parkside is handled by an Architectural Review Committee ("A.R.C.") established by the Board of Directors ("Parkside Board") of the Anthem Parkside Community Association ("Association"). The A.R.C. has been established to monitor, review and control the development of residential property within Anthem. Refer to Section I C (Modifications) for specific information as to when an application is required.

The A.R.C. shall review plans and specifications, and shall enforce the Design Guidelines and may promulgate additional design standards and review procedures. The A.R.C. has exclusive jurisdiction

over original construction, initial landscape installation, (unless installed by the original builder), modifications, additions, and alterations made to Lots, to structures and landscaping on Lots. After a Lot and its structures and landscaping have been completed according to approved plans (original construction), the A.R.C. must review all proposed changes to the exterior of the structure and the lot.

C. SUBMITTAL PROCEDURES

The following procedures shall apply to Owners when submitting Review Requests to the A.R.C.

1. An application (sample form attached as Appendix A) requesting review by the A.R.C. is required for all Review Requests. The application shall include the following information:

    a. Owner's name, mailing address and telephone number.

    b. The Neighborhood and street address of the Lot.

    c. The Builder's original plans number and/or model name of home.

    d. The nature of the request. Such request shall be limited to:

        i. Review and approval of final plans (initial submission).

        ii. Reconsideration of a "not approved" Review Request or any notation of an "approved as noted" Review Request.

        iii. Review and consideration of exceptions to or deviations from the Design Guidelines.

        iv. Review and consideration for a change to the provisions of the Design Guidelines.

    e. A brief description of the proposed construction or modification.

    f. Planned completion date for the construction or modification proposed in the Review Request.

    g. An acknowledgment that the Owner is responsible for scheduling all works in a timely manner and for complying with any approval issued by the A.R.C.

    h. The name, address and telephone numbers of Owner's agent, or representative or subcontractor (if applicable).

2. In addition to the application the Owner shall submit plans for the proposed construction or modification as follows:

a. For landscape, contouring, irrigation or lighting plan approval, or amendments to approved plans, Owner shall submit one copy of the landscape, contouring, irrigation and lighting plans for the front and rear yards of the Lot. Plans must clearly indicate the following information:

i. Identify the location of all existing or proposed plants including trees, shrubs, accent plants and ground cover. Draw proposed and existing plants using symbols or call outs that correspond to the plant legend.

If the Review Request is for an amendment to a previously approved landscape plan, the existing trees, plants and shrubs shall be marked on the landscape plan with a circle marked with a dashed line and a cross in the center indicating their location, and with the proposed additions marked on the landscape plan with a circle marked with a solid line and a dot in the center. All landscape materials proposed to be removed shall be described as part of the Review Request.

ii. The plant legend must identify the botanical and common name, installation size, and quantities. Incomplete submittals WILL NOT be accepted for review.

iii. Identify areas to receive any hardscape treatments. Clearly mark the hardscape treatments on the landscape plan and the legend so that the A.R.C. can easily determine the location, type and color of the material. Submit material and color samples upon requestby the A.R.C.

iv. Identify areas to receive landscape. The plan shall clearly indicate the location and type of treatment proposed, i.e., decomposed granite locations, native rock applications, or boulders. Legend should indicate proposed quantities, size of material and color.

v. Any proposed changes to the original grading must be accompanied by a contouring plan using minimum 1 foot contour intervals. Indicate proposed slope ratios along the face of each contoured area (3:1, 4:1 etc.). Contouring should occur on all Front Yards or any Side Yard located outside the fence to provide visual interest to the streetscape and to help provide smooth, seamless transitions between proposed and existing grades. Contouring should not result in a lumpy appearance. The maximum height of landscaping mounds from original grade is thirty inches.

Lots have been designed and graded to provide positive drainage from the lot to the street or to a wash/open space area. The contouring plan must address proposed direction of flow across the site. The Owner shall hold harmless the A.R.C., the Association(s), and the original builder for

any damage caused by the alteration of the grade by Owner in connection with the design or installation of Owner's landscaping, including damage to owner's house. The owner shall be responsible for any additional damage to the property, house or neighboring property caused by altering the grading.

vi. Identify location of any proposed landscape lights, transformers or electrical equipment and method for screening. Provide construction details on the plans and equipment specifications in the legend including type of fixture, color and finish of light fixture, voltage and bulb wattage requirements. The A.R.C. may require field-testing of fixture locations at night prior to final installation and/or the owner to provide an on-site demonstration of proposed site lighting techniques.

b. For changes to or additions to the home, the Owner shall submit two sets of floor plans for the home, including the plot plan and a copy of the floor plan for the model and elevation. On such plans, Owner shall draw the proposed changes or additions to the exterior elevation. If Owner has a photograph of another house or a picture from a magazine that will assist the A.R.C. in its review, such photo should be submitted. The application should contain a description of the materials Owner plans to use in such changes or additions. If the change or addition affects the roof or roofline, a roof plan should also be submitted. A building section may be requested depending on the complexity of the change or addition. The A.R.C. may require that the plans be prepared by a qualified architect or engineer depending on the nature of the request.

c. For all other improvements, changes or additions to the Lot or the home, including, but not limited to, construction, installation, or modification of walls and fences, ancillary equipment, signage, pools, play equipment, grading, drainage, and irrigation systems, the Owner shall submit a site plan drawn to scale showing the location, height, and dimension of the proposed improvement, change, or addition, the property line of the Lot, the setback requirements, any easements, the footprint of the home and driveway, sidewalks, decks, patio, walls, and existing landscaping. The Owner shall also submit a detailed description of the proposed improvement, change, or addition, the purpose of the proposed improvement, change or addition, construction specifications, material and color samples, if appropriate, and any additional information or clarification requested by the A.R.C. Copies of all necessary permits, fees (if any), and applications shall also be submitted.

3. The A.R.C. may request additional information and clarification of the information given if deemed appropriate by the A.R.C. For example, the Reviewer may request that large color samples (12"x12") be painted on key exterior walls prior to completing a project. The panel samples can be observed by the A.R.C. at various times during the day to ensure their integrity of color under different levels of sunlight. Until all requested information is provided to the A.R.C., the Review Request shall be deemed incomplete.

4. All Review Requests should be addressed to the Anthem Parkside Community Association, at such address as designated by the Parkside Board in written notice to the Owners. Please note that the request is for the attention of the A.R.C.

D. REVIEW PROCEDURES

1. The A.R.C. shall review all requests without hearings and based solely on the information contained within the Review Request; provided, however, the A.R.C., and its authorized agents may at any time request additional information or inspect a Lot for compliance with the Declaration, these Design Guidelines and any approved plans for construction or modification.

2. The A.R.C. will reference these Design Guidelines in reviewing requests. Although these Design Guidelines address a broad range of exterior building and site conditions, they are not intended to be all-inclusive. Variances to these Design Guidelines may be permitted by the A.R.C. only in accordance with Article 4.5 of the Declaration.

3. Within forty-five (45) days of receipt of a complete Review Request, the A.R.C. shall respond to the Owner. The A.R.C.'s decision shall be rendered in one of the following three forms:

   a. "Approved" - The entire document submitted is approved in total.

   b. "Approved As Noted" - The document submitted is partially approved. The Owner must resubmit the application incorporating the A.R.C.'s conditions and receive approval prior to commencing the construction or alteration.

   c. "Not Approved" - The entire document submitted is not approved, and no work may commence.

E. IMPLEMENTATION OF APPROVED PLANS

1. All work must conform to plans approved. If it is determined by the A.R.C. that work completed or in progress on any lot is not in compliance with these Design Guidelines or any approval issued by the A.R.C., the A.R.C. shall notify the Board. The Board shall notify the Owner in writing of such noncompliance within ten (10) days of inspection, specifying in reasonable detail the particulars of noncompliance and shall require the Owner to remedy the same. If the Owner fails to remedy such noncompliance or fails to commence and continue diligently toward achieving compliance, then such noncompliance shall be deemed to be in violation of the Declaration and these Design Guidelines.

2. If construction does not commence on a project for which plans have been approved

within one-hundred twenty (120) days of such approval, such approval shall be deemed withdrawn, and it shall be necessary for the Owner to resubmit the plans to the Reviewer for reconsideration.

3. The A.R.C. shall include in any approval a maximum time period for the completion of any new construction or modification. The Owner may request an extension of such maximum time period not less than three (3) days prior to the expiration of the maximum time period, which the A.R.C. may approve or disapprove, in its sole discretion.

4. If construction is not completed on a project for which plans have been approved within the period set forth in the approval or within any extension approved by the A.R.C., such approval shall be deemed withdrawn, and such incomplete construction shall be deemed to be in violation of the Declaration and these Design Guidelines.

F. RECONSIDERATION OF "NOT APPROVED" AND "APPROVED AS NOTED" DECISIONS

Any Owner shall have the right to request reconsideration of a decision of the A.R.C. by resubmitting the information, documents and fees set forth in Article III; however, such request shall be considered only if the appellant has modified the proposed construction or modification or has new information which would, in the A.R.C.'s opinion, warrant a reconsideration. If an Owner fails to request reconsideration of a decision of the A.R.C. or if the A.R.C. after such request again rules in a manner aggrieving the appellant, the decision of the A.R.C. is final. The filing of a request for reconsideration does not extend any maximum time period for the completion of any new construction or modification, including the period for completion of initial landscaping.

G. BUILDING PERMITS

If the plans submitted by an Owner require a building permit, it is the responsibility of the Owner to obtain such permit. The approval of the A.R.C. is not a guarantee that such plans will be approved by Maricopa County or the City of Phoenix nor does it satisfy agency building permit requirements. If the regulatory agency requires modifications to the plans, such modifications must also be approved by the A.R.C.

H. FEES

The Parkside Board may establish and charge reasonable fees for review of applications. Any fee payments shall be made at the time of request and prior to review by the A.R.C. All fees shall be made payable to the Anthem Parkside Community Association and are nonrefundable.

I. ENFORCEMENT

In the event of any violation of these Design Guidelines, the Parkside Board or the Council may take enforcement action pursuant to Section 4.7 of the Declaration. The Board or Council may remove or remedy the violation and/or seek injunctive relief requiring the removal or the remedying of the violation. In addition, the Board or the Council shall be entitled to recover the costs incurred in enforcing compliance and/or impose a fine, which fine shall not exceed ten percent (10%) of the cost of achieving compliance, against the Lot upon which such violation exists.

IV. NONLIABILITY FOR APPROVAL OF PLANS

Section 4.6 of the Declaration contains a disclaimer of liability or responsibility for the approval of plans and specifications contained in any request by an Owner. PRIOR TO SUBMITTING PLANS OR INFORMATION FOR REVIEW, YOU SHOULD READ AND UNDERSTAND THIS DISCLAIMER. IF YOU DO NOT UNDERSTAND IT, PLEASE ASK A REPRESENTATIVE OF THE A.R.C. TO EXPLAIN IT TO YOU.

V. CHANGES AND AMENDMENTS TO THE DESIGN GUIDELINES

The Design Guidelines may be amended as follows:

A. The "Board" or "Council" may propose changes to these Design Guidelines. Additionally, any owner may submit to the A.R.C., proposed changes to the Design Guidelines for review and consideration.

B. Any amendment to these Design Guidelines shall be approved by two-thirds (2/3) of the members of the A.R.C., the Parkside Board of Directors, and the Anthem Community Council.

D. Such amendment shall be promptly posted in a prominent place within Anthem.

E. All amendments shall become effective upon adoption by the Council. Such amendments shall not be retroactive to previous work or approved work in progress.

F. In no way shall any amendment to these Design Guidelines change, alter or modify any provision of the Declaration, any Supplemental Declaration or the Articles or By-Laws of the Parkside.

APPENDIX A

ANTHEM PARKSIDE ARCHITECTURAL REVIEW COMMITTEE
APPLICATION for APPROVAL

This application is for Approval of Landscaping and Exterior Modifications.

→Submit one copy of plans, minimum size of 8 1/2"x 11", with the Application to the Parkside Community Association, 3701 W. Anthem Way, Anthem, AZ 85086

Date Submitted:_____/_____/_____ **Closing Date:** _____/_____/_____ **Neighborhood:**_____ **Lot:**_____

Homeowner Name:_____ **Phone:**_____

Address:_____

Other Mailing Address:_____**Phone:**_____

Nature of Request: check number & circle appropriate item ***Completion Date:**_____/_____/_____

( )1. Landscaping (Front Yard, Rear Yard– please circle appropriate)
(Front yard must be completed within 90 days of closing rear yard within 180 days)
( )2. Addition to Dwelling Unit (room addition, etc.)
( )3. Concrete Work Only (walkways, patio, etc.)
( )4. Walls, Fences, Gates
( )5. Patio Extension, Sun Screens, Awnings
( )6. Pool, Spa or Jacuzzi, Fountain
( )7. Satellite Dish Larger Than One Meter (size, color, location)
( )8. Security Door, Security Mail Box
( )9. Other_____

TYPE OF LOT
_____Rear Yard View Lot
_____Interior Lot
_____Corner Lot
_____Cul-de-sac
_____Oversized Lot

Contractor Name & Phone No.:_____

→Plans must include the following (where applicable): Plot plan, Floor Plan, Exterior Elevations, Roof Design, Exterior Materials and Finishes, Landscaping Plan, Wall Dimensions with Side View, and such other items needed to reflect the character and dimension of modifications.

THIS APPLICATION REQUIRES THE SIGNATURE OF THE HOMEOWNER. THE UNDERSIGNED ACKNOWLEDGES THAT IF ANY WORK HAS COMMENCED PRIOR TO THE APPROVAL OF THE REVIEWER, HE/SHE WILL BE LIABLE FOR ALL COSTS NECESSARY TO BRING THE WORK INTO COMPLIANCE WITH THE CC&R'S (DECLARATION) OR DESIGN GUIDELINES. BY SIGNING THIS APPLICATION FORM, I, THE HOMEOWNER, GIVE AUTHORIZATION TO THE REVIEWER TO ENTER THE PROPERTY FOR THE PURPOSE OF INSPECTING ALL WORK IDENTIFIED ON THE APPLICATION AS BEING SATISFACTORILY COMPLETED.

_____ _____
(Required) Homeowner Signature **Date**

THIS APPROVAL DOES NOT RELIEVE THE HOMEOWNER FROM ALL CC&R AND ANTHEM DESIGN GUIDELINE REQUIREMENTS, NOR DOES IT CONSTITUTE APPROVAL AS TO COMPLIANCE WITH APPLICABLE ARIZONA LAW, MARICOPA COUNTY, AND/OR CITY OF PHOENIX BUILDING AND SAFETY REQUIREMENTS OR ZONING ORDINANCES.

ACTION TAKEN BY THE ARC:
( ) **Approved**
( ) **Approved as Noted** (the request submitted is conditionally approved subject to noted conditions)
( ) **Disapproved** (the request is not appoved and **must be re-submitted** with revisions)

Committee Member Signatures: _____ Date:_____
_____ Date:_____

COMMENTS:_____

Ver 1.11 9-30-09

Schedule of Revisions

	Version	Changes	Date Approved
1.	Version 1.06	Major revisions approved by Board	8-07-07
2.	Version 1.07	Add Schedule of Revisions	3-18-08
		Page 16 Section B Change minimum size of Inert Ground Cover from ½" Minus to ½" Screened	
3.	Version 1.08	Page 16 Section B add **New River Cobble** as an approved Parkside granite option. This granite comes from Jake's Granite Supplies.	9-16-08
		Page 16 Section B add **In Unit 81 only, ¼" minus granite may be used as driveway access to the rear yard gate so long as it matches the color of the rest of the granite installed in the yard**	
		Page 29 Section V add **The maximum height of landscaping mounds from original grade is thirty inches.**	
4.	Version 1.09	Page 6 Section D add **Any exterior modification made to a Parkside property without prior written approval by the Architectural Review Committee will be subject to a $300 fine and possible forced removal of the installation. If the unapproved modification is not approved or removed within thirty days of the date of violation, additional fines of $300 per month will be assessed until the modification is either approved or removed.**	11-18-08
		Page 17 Delete existing artificial turf guidelines and replace with **Being in a desert environment, water conservation is an important priority. Because of this, the Architectural Review Committee (ARC) and the Board of Directors will consider requests to install artificial turf on lots underthe following conditions:**	
		The ARC and/or Board of Directors reserves the right to require removal/replacement of any area of artificial turf, which does not meet the standards, set forth by these guidelines.	
		Artificial turf must be professionally instaled by a licensed representative of the manufacturer and covered by a manufacturer's warranty of at least seven years. The installation contractor must be licensed, bonded and	

insured.

Any request for installation of artificial turf must include a minimum of a one square foot boxed sample (including infill) of the exact finished turf product, along with the manufacturer's product specifications. Allowable tufted face weight (Pile weight) range is between 30 ounces to 78 ounces per square yard. The maximum width of the stitch gage is 3/4 inch.

A minimum of 3 inches of compacted aggregate material shall be installed under the artificial turf surface (sub-base materials).

Artificial turf must be installed in such a way as to appear seamless and uniform. All seams must be glued. Only natural colors are acceptable, to remain unchanged from the natural green lawn appearance, and subject to approval by an ARC reviewer.

The length of the artificial turf shall be minimum of 1-½ inches, not to exceed 2 1/4 inches.

Only turf requiring infill installation will be allowed. Infill material installation shall be according to turf manufacturer specifications or based upon standard industry guidelines. Minimum infill installation shall be 2 pounds per square foot.

Artificial turf must be maintained in like-new condition, color, and uniformity with no tears or seams visible. Any fading or deterioration or wear patterns and incidental damage of the product will necessitate replacement.

Artificial turf may not encompass more than 20% of the front yard, and utilize a header (border) as needed. See section II D of the Design Guidelines for specific header specifications.

Replacement of the artificial turf must be pre-approved by the Architectural Review Committee to ensure like type, color and quality of the replacement product.

5. Version 1.10 5-19-09

Pages 9 and 10 Add:
Extremely Small Yard planting requirements.

Page 14 Add:
Artificial plants (other than artificial turf) are prohibited in the front yards and rear yards where Visible From Neighboring Property (see Ornamentation).

Page 20 Ornamentation Revise:
Ornamentation to remove specific prohibited items and disallow all yard art. Allow bird baths and bird feeders in rear yards.

Page 22 Add:
Sunshades to Section K. Add "Sunshades may be supported on Metal poles that match the color of the home. The color of the sunshade, or sail, must match a color on the home".

Page 23 Add:
Patio Covers to Section P. Amend roofing requirements for Gazebos and Ramadas and Patio Covers to require roofing material to match the house. Columns for tile roofs for gazebos, ramadas, and patio covers to be masonry as described in Section S "Other Building Features". Allow woodor aluminum posts 6" wide for trellisworkroofs.

Page 26 Add:
"only in the Homeowner's front yard" to the garage sale portion of Signs.

6. Vers. 1.11 9-30-09

Page 18 Remove:
Artificial Turf
"400 square foot" and "whichever is smaller"
Add:
Artificial turf may not exceed 75% of the landscape area and may be no closer than three feet to property line walls.

Update Table of Contents

EXHIBIT
A-50
ADMITTED

ARIZONA AMERICAN WATER
CONSOLIDATED RATES MODEL

LIST OF NON-CONSOLIDATED ITEMS

	Average Number of customers	Number of RV/apt units	Current or Rebuttal Rates
Sun City Water	1		$ 106
Sun City West Water	na		na
Agua Fria Water	5		$ 122,491
Anthem Water	2		$ 131,031
Tubac Water	na		na
Mohave Water	6	275	$ 389,075
Havasu Water	8	796	$ 180,632
Paradise Valley Water	1		$ 276,706
Total	23	1,071	$ 1,100,041

Total Revenue Target, including above	$ 71,711,438
Percent of Revenues not consolidated	1.5%

FENNEMORE CRAIG, P.C.
Norman D. James (No. 006901)
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Suite 2600
Phoenix, Arizona 85012
Telephone (602) 916-5000
Attorneys for DMB White Tank, LLC

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT, AND POSSIBLE RATE CONSOLIDATION FOR ALL OF ARIZONA-AMERICAN COMPANY'S DISTRICTS.	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT, AND POSSIBLE RATE CONSOLIDATION FOR ALL OF ARIZONA-AMERICAN COMPANY'S DISTRICTS.	DOCKET NO. SW-01303A-09-0343

EXHIBIT
DMB - 1
ADMITTED

DIRECT TESTIMONY OF DANIEL T. KELLY

(RATE DESIGN)

MAY 3, 2010

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Daniel T. Kelly. My business address is 7600 E. Doubletree Ranch Rd., Suite 300, Scottsdale, Arizona 85258.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by DMB Associates, Inc., as Senior Vice President of Arizona Development. In such capacity I am responsible for land development activities in Arizona, including the day-to-day operation and financial performance of Verrado and the subsidiary entities relating to Verrado, including DMB White Tank, LLC ("DMB"), an Arizona limited liability company. I have been employed by DMB Associates since 2002.

Q. WHAT IS "VERRADO"?

A. Verrado is master planned community in the Town of Buckeye, Maricopa County, located north of Interstate 10. It is generally bounded by McDowell Road on the south and Tuthill Road on the east, and extends into the foothills of the White Tank Mountains. Verrado contains approximately 8,800 acres of land. At present, approximately one-third of Verrado is built, consisting of 3,000 improved lots with 1,600 homes, a commercial core, an 18-hole championship golf course, Verrado Elementary School, Verrado High School, and multiple park, trail and open space systems.

Q. ARE YOU FAMILIAR WITH THE APPLICANT IN THIS RATE CASE, ARIZONA-AMERICAN WATER COMPANY?

A. Yes. Arizona-American provides water and sewer utility service to customers and landowners in Verrado, including the 18-hole golf course in Verrado I mentioned previously, which is called the Raven Golf Club at Verrado.

Q. IS DMB A CUSTOMER OF ARIZONA-AMERICAN?

A. Yes. Effluent produced by Arizona-American's wastewater treatment plant in

Verrado is sold to DMB and reused for golf course irrigation pursuant to a reuse permit issued by the Arizona Department of Environmental Quality ("ADEQ"). We also receive water and sewer utility service from Arizona-American at various business locations in Verrado and purchase non-potable water for construction purposes. Consequently, increases in the rates and charges for utility service have a significant impact on our operations.

Q. WHAT IS DMB'S PRIMARY CONCERN WITH RESPECT TO ARIZONA-AMERICAN'S APPLICATION FOR RATE INCREASES?

A. DMB's primary concern is the rate charged for effluent. It is my understanding that the Agua Fria Wastewater District, which produces and is responsible for the disposal of the effluent, has no rate for effluent in its tariff. Instead, we are being billed at the rate of $2.728 per 1,000 gallons for effluent, which is over $888 per acre-foot, by the Agua Fria Water District. DMB believes that this rate is excessive, and asks that the Corporation Commission establish a specific rate for effluent that is reasonable and encourages its use.

Q. DO YOU KNOW WHY THIS RATE IS NEARLY $890 AN ACRE-FOOT FOR EFFLUENT?

A. No. I suspect this rate was the result of an oversight by the Corporation Commission when it approved the current rate for non-potable service in Arizona-American's previous rate case, Docket Nos. W-01303A-08-0227 and SW-01303A-08-0227. That rate case involved the Agua Fria *Water* District. The rates charged by the Agua Fria Wastewater District were not considered. I doubt that anyone at the Corporation Commission thought they were setting a rate for sewage effluent produced by the Wastewater District. In addition, I don't believe that any of the parties to the previous rate case actually analyzed the cost of providing non-potable water service. The rate for non-potable service is not discussed in Decision No.

71410 (Dec. 8, 2009).

Q. WHAT DOES EFFLUENT TYPICALLY COST?

A. In Decision No. 71410, the Corporation Commission authorized Arizona-American's Mohave Wastewater District to charge $227.79 per acre-foot for effluent. Arizona-American had requested, at least initially, that the effluent rate be increased from $200 to $250 per acre-foot, according to the direct testimony of Thomas M. Broderick. A copy of the portion of Mr. Broderick's testimony that discusses the effluent rate is attached as Exhibit DTK-1. As in this case, Arizona-American is selling the effluent to a golf course for turf irrigation. Mr. Broderick explained that $250 per acre-foot is comparable to the rate charged by other effluent providers, identifying two private sewer utilities, Woodruff Utility Company and Gold Canyon Sewer Company, which sell effluent in Pinal County, and the City of Bullhead.

Q. DO YOU BELIEVE THAT MR. BRODERICK'S PROPOSED RATE FOR EFFLUENT DELIVERIES IS REASONABLE?

A. Yes. Although the rate for sewage effluent varies, most private sewer utilities seem to be charging between $150 and $325 per acre-foot for effluent, which is consistent with Mr. Broderick's testimony. For example, Litchfield Park Service Company, which is close to Verrado, is charging between $55 and $225 per acre-foot. A table that provides examples of current effluent rates is attached as Exhibit DTK-2. So I believe that a rate of $250 per acre-foot for effluent is reasonable. Moreover, a higher rate will discourage the use of effluent and encourage the use of groundwater instead. I don't know the Corporation Commission's views on this issue, but I doubt that the agency is attempting to discourage effluent reuse by setting an extremely high rate. As I said earlier, I believe this is an oversight rather than a deliberate policy decision by the Commissioners.

Q. DOES DMB HAVE ACCESS TO GROUNDWATER?

A. Yes. DMB owns a well located near the Beardsley Canal and Campbell Avenue. Water is pumped from the well to a small reservoir that we use for water storage, which we refer to as our construction pond. From that pond, water is pumped to the golf course. With effluent now priced at nearly $890 per acre-foot, we will be forced to rely far more heavily on groundwater for golf course irrigation. Put simply, groundwater is much less expensive to use, even with our pumping and maintenance costs.

Q. DOES DMB HAVE ACCESS TO ANY OTHER WATER SUPPLIES THAT CAN BE USED FOR TURF IRRIGATION AND OTHER NON-POTABLE USES?

A. Yes. In the past, we have purchased non-potable water from Arizona-American's Agua Fria Water District to augment our use of effluent. This water consists of untreated Central Arizona Project ("CAP") water.

Q. WHY DID YOU SAY "IN THE PAST" IN YOUR PREVIOUS ANSWER?

A. As I mentioned, in Decision No. 71410, the cost for untreated (raw) CAP water was increased by 340 percent, from approximately $202 per acre-foot ($0.62 per 1,000 gallons) to over $888 per acre-foot ($2.728 per 1,000 gallons). As a result of this increase, DMB is phasing out its use of CAP water.

Q. DO YOU BELIEVE THAT THE RATE FOR NON-POTABLE WATER IS UNREASONABLE?

A. The current cost for CAP water sold under a long-term subcontract, as established by the Central Arizona Water Conservation District, is $118 per acre foot, as shown on Exhibit DTK-3 to this testimony. I am informed that the Maricopa Water District, which transports CAP water to the Verrado area via the Beardsley Canal, currently charges an additional $27.40 per acre foot, bringing Arizona-

American's total cost to obtain CAP water to $145.40 per acre foot. Thus, Arizona-American charges more than six times the cost of obtaining untreated CAP water for "non-potable" water service in Verrado. This high rate discourages the use of renewable CAP water.

Q. BUT DOESN'T ARIZONA-AMERICAN WATER HAVE OTHER COSTS AND EXPENSES, AS WELL AS AN INVESTMENT IN PLANT, THAT SHOULD BE TAKEN INTO ACCOUNT IN SETTING A FAIR RATE FOR RAW CAP WATER?

A. Actually, Arizona-American has little investment in plant and incurs few costs in providing raw CAP water to Verrado. CAP water is turned out from the Beardsley Canal into the Monthafer Sump, which is a small reservoir located just north of Sells Road and east of 192nd Avenue. DMB leases this sump. From there, DMB pumps the CAP water to DMB's construction pond and then to the golf course. Some of the pipes used to convey the CAP water are owned by Arizona-American, but otherwise, Arizona-American has little involvement in the delivery of CAP water. The utility has a booster pump station located near Indian School Road and 197th Lane, but there is a valve that allows us to bypass this facility. Consequently, DMB pays the cost of delivering the raw CAP water to the construction pond and golf course, and owns most of the facilities used to store and transport the water. I estimate that DMB's total cost to use raw CAP water is approximately $1,100 per acre-foot due to increase in the non-potable water rate approved last December and DMB's pumping costs and related expenses.

Q. SO UNTREATED CAP WATER IS NOW THE MOST EXPENSIVE WATER TO USE FOR GOLF COURSE IRRIGATION AND OTHER NON-POTABLE USES IN VERRADO?

A. That is correct. As a consequence of the increase in the non-potable rate charged

by Arizona-American's Agua Fria Water District, raw CAP water is over $200 per acre-foot more expensive than effluent, while effluent is about $600 per acre-foot more expensive than groundwater. We estimate using approximately 550 acre-feet of water per year for golf course irrigation. Limiting our use of effluent (and even more expensive CAP water) will save us several hundred thousand dollars annually.

Q. DO YOU UNDERSTAND THAT THE ADMINISTRATIVE LAW JUDGE HAS RULED THAT THE NON-POTABLE WATER RATE CHARGED BY THE AGUA FRIA WATER DISTRICT IS NOT AT ISSUE IN THIS PROCEEDING?

A. I do. My purpose in discussing the current cost of CAP water as compared to the rate charged by Arizona-American for non-potable water is to show the disparity between the costs of using groundwater, effluent and raw CAP water, and explain why DMB will now rely far more heavily on groundwater for golf course irrigation and other non-potable uses. This is not what DMB would prefer to do, but we have no choice due to the relative cost of groundwater, effluent and CAP water.

Q. DO YOU HAVE ANY FINAL COMMENTS?

A. The Corporation Commission should establish a reasonable rate for effluent in setting rates for the Agua Fria Wastewater District – a rate that encourages, rather discourages, effluent use. The Wastewater District owns the wastewater collection and treatment facilities, and is responsible for safely treating wastewater and disposing of the resulting effluent in accordance with applicable discharge limits. As a matter of common sense, I would expect the revenue from the sale of effluent to be used to offset some of the costs incurred by the Wastewater District to produce the effluent. This would benefit customers receiving residential and commercial sewer service by reducing their rates, while encouraging the reuse of

effluent for golf course irrigation. In addition, if effluent can't be reused on the golf course, then not only will the revenue from the sale of effluent be lost, but Arizona-American will incur additional expenses to dispose of the effluent in accordance with ADEQ requirements, leading to higher rates. Setting a price for effluent that encourages its use will benefit everyone.

Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY IN THIS CASE?

A. Yes.

2306160

EXHIBIT DTK-1

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MIKE GLEASON, Chairman
JEFF HATCH-MILLER
WILLIAM A. MUNDELL
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT, MOHAVE WATER DISTRICT, PARADISE VALLEY WATER DISTRICT, SUN CITY WEST WATER DISTRICT, AND TUBAC WATER DISTRICT.	DOCKET NO. W-01303A-08-0227
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WASTEWATER DISTRICT	DOCKET NO. SW-01303A-08-0227

REVISED DIRECT TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
JUNE 20, 2008

REVISED DIRECT TESTIMONY
OF
THOMAS M. BRODERICK
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
JUNE 20, 2008

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EXHIBIT TMB-2 - Cost of Capital

EXHIBIT TMB-3 - Rate Case Expense

EXHIBIT TMB-4 – White Tanks' AFUDC Reduction

EXHIBIT TMB-5 - Tubac ACRM Step 1 Forecast

EXHIBIT TMB-6 - Paradise Valley Average Residential Usage

I INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

A. My name is Thomas M. Broderick. My business address is 19820 N. 7th Street, Suite 201, Phoenix, Arizona 85024, and my business phone is 623-445-2420.

Q. IN WHAT CAPACITY AND BY WHOM ARE YOU EMPLOYED?

A. I am employed by American Water as Director, Rates & Regulation for operations in Arizona, New Mexico and Texas. Arizona-American Water Company ("Arizona-American" or the "Company") is a wholly-owned subsidiary of American Water.

Q. PLEASE DESCRIBE YOUR PRIMARY RESPONSIBILITIES FOR THE COMPANY.

A. I am responsible for water and wastewater rate cases and public utility regulation in Arizona, New Mexico and Texas.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND EDUCATION.

A. For more than 20 years before joining the Company in 2004, I held various management positions in the electric-utility industry with responsibilities for regulatory and government affairs, corporate economics, planning, load forecasting, finance and budgeting with Arizona Public Service Company, PG&E National Energy Group and Energy Services, and the United States Agency for International Development. I was employed at APS for nearly 14 years as Supervisor, Regulatory Affairs, then Supervisor, Forecasting, and then Manager, Planning. I was designated APS' Chief Economist in the early 1990s. For PG&E National Energy Group, I was Director, Western Region-External Relations. For USAID, I was Senior Energy Advisor to Ukraine.

I have a Masters Degree in Economics from the University of Wisconsin – Madison and a Bachelors Degree in Economics from Arizona State University.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes, on many occasions.

II PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

A. Please see the executive summary of my direct testimony.

III SUMMARY OF RATE CASE

Q. WHAT ARE ARIZONA-AMERICAN'S REQUESTED REVENUE INCREASES IN THIS CASE?

A. Arizona-American's requested revenue increases, rate base and operating expenses are summarized on Exhibit TMB-1. The total requested revenue increase is $19,961,632. This requested rate base for these seven districts is $198, 272,853.

Q. WHAT ARE ARIZONA-AMERICAN'S OTHER REQUESTS IN THIS RATE CASE?

A. Other requests by Arizona-American include approval of various accounting treatments especially as regards the White Tanks Plant, and various surcharges such as a Tubac ACRM and a Paradise Valley Public Safety surcharge.

Q. WHAT WITNESSES SUPPORT ARIZONA-AMERICAN'S REQUEST?

A. In addition to my testimony, the following witnesses are providing testimony to support Arizona-American's direct case: Mr. Paul Townsley, Mr. Joseph Gross, Mr. Bradley J. Cole, Ms. Sheryl Hubbard, Ms. Linda Gutowski, Mr. John C. (Jake) Lenderking, and external expert witnesses Dr. Bente Villadsen and Mr. Paul Herbert.

Valley district customers determined by the Town to have met the program's criteria. The rate discount would be funded by revenues collected from the system-benefit surcharge described above. As soon as we have the key program details, the initial amount of the system-benefit charge can be proposed based on an amount necessary to help provide residential customers an incentive to convert landscape and based on an estimate of the size of the target population the Town would like to incent to convert landscape to reduce water usage. An on-going rate discount is preferable to a one-time rebate, because rebate programs may tend to benefit free riders (people or developers that were going to do a landscape conversion without any incentive).

Arizona-American looks forward to learning more about this program from the Town of Paradise Valley and will respond further in its rebuttal testimony.

XI HOOK-UP FEES (HAVASU WATER)

Q. HAVE PROCEEDS OBTAINED FROM HAVASU WATER DISTRICT'S ARSENIC IMPACT FEE ("AIF") BEEN APPLIED AS CONTRIBUTIONS TO REDUCE HAVASU'S ARSENIC RATE BASE?

A. Yes. Through the end of the test year, $61,805 in AIF proceeds had been collected and reflected as contributions which reduced test year rate base in Schedule B rate base for Havasu. This is well short of expectations.

XII WASTEWATER EFFLUENT TARIFF (MOHAVE WASTEWATER)

Q. WHY IS ARIZONA-AMERICAN ASKING TO INCREASE THE RATE FOR TREATED EFFLUENT IN THE MOHAVE WASTEWATER DISTRICT?

A. We are asking to increase the rate for treated effluent from $200 to $250 per acre-foot. Only one customer—a golf course known as Desert Lakes—is on this tariff. Arizona-American has agreed to provide Desert Lakes all effluent available from wastewater

operations. Desert Lakes, in turn, has an agreement with the Mohave Valley Irrigation and Drainage District to furnish all remaining water needed for golf course irrigation, but this water must be replaced with reclaimed wastewater by the year 2017. Currently, we estimate that the effluent being produced and provided is about half of the golf course's irrigation requirements. We also believe that the cost of treated effluent at the increased rate will remain below the cost of water from the District. Thus, as the Mohave Wastewater District's sewage flows grow the golf course should continue to purchase all of the effluent produced. A rate increase for treated effluent reduces the rate increase required from other Mohave Wastewater customers at test-year effluent volumes (see Schedule C-2 income statement adjustment LJG-4).

Q. ARE EFFLUENT RATES ELSEWHERE COMPARABLE?

A. Yes. Woodruff's rate is $300 per acre foot. Gold Canyon is presently $256 per acre foot. The nearby City of Bullhead is presently $256 per acre foot.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY IN THIS CASE?

A. Yes.

EXHIBIT DTK-2

Arizona-American Water Company
Docket Nos. W-01303A-09-0343
and SW-01303A-09-0343

EXAMPLES OF CURRENT EFFLUENT RATES CHARGED BY PRIVATELY OWNED SEWER UTILITIES[1]

Utility	Current Rate (per acre-foot)	Proposed Rate (per acre-foot)[2]
Az-American Mohave	$227.00	N/A
Black Mountain Sewer	$122.00	$150.00
Coronado Utilities	$48.88	$65.17
Far West Water & Sewer	$325.85	N/A
Gold Canyon Sewer	$190.95	N/A
Hassayampa Utility Co.	$400.00	N/A
Johnson Utilities	$200.00	$200.00
Litchfield Park Serv. Co.[3]	$55.00 - $225.00	$55.00 - $225.00
Pima Utilities	$188.99[4]	N/A
Rio Verde Utilities	$316.08	N/A
Santa Rosa Utility	$283.49	N/A
Woodruff Utility	$300.00	N/A

2308842

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[1] Based on information that is publicly available on the Arizona Corporation's website, www.cc.state.az.us/.

[2] Proposed rates refer to the rate for effluent requested by the utility in a pending rate case. Such rate may or may not be approved by the Corporation Commission.

[3] Litchfield Park Service Co. is authorized to charge a "market rate" (i.e., a negotiated rate) that may not exceed $430.00 per acre-foot. No change has been requested in the utility's pending rate case.

[4] There is also a monthly minimum charge of $180.00, which includes 100,000 gallons of effluent.

EXHIBIT DTK-3

CENTRAL ARIZONA PROJECT
PRELIMINARY 2011/2012 RATE SCHEDULE

DELIVERY RATES FOR VARIOUS CLASSES OF WATER SERVICE

Units = $/ acre-foot

(The Letter Designations in the Formulas Refer to the Rate Components Shown Below)

	2010	Firm 2011	Provi-sional 2012	Advisory 2013	2014	2015	2016
Municipal and Industrial							
Long Term Subcontract (B+C) [1]	$ 118	**$ 122**	**$ 122**	$ 126	$ 129	$ 137	$ 141
Non-Subcontract (A+B+C)	133	**137**	**137**	141	139	142	141
Recharge (A+B+C starting 2011) [2]	133	**137**	**137**	141	139	142	141
AWBA Interstate Recharge (A+B+C+F starting 2011) [3]	236	**167**	**163**	164	162	166	167
Federal (B+C)	$ 118	**$ 122**	**$ 122**	$ 126	$ 129	$ 137	$ 141
Agricultural							
Settlement Pool (D) [4]	$ 49	**$ 53**	**$ 49**	$ 50	$ 51	$ 56	$ 58
Agricultural Incentives [4]							
Meet Settlement Pool Goals	(6)	**(8)**	**(4)**	tbd	tbd	tbd	tbd
Meet AWBA/CAGRD GSF Goals	(2)	**(2)**	**(1)**	tbd	tbd	tbd	tbd
Meet Recovery Goals	(2)	**(2)**	**(1)**	tbd	tbd	tbd	tbd

RATE COMPONENTS

Units = $/acre-foot

	2010	Firm 2011	Provi-sional 2012	Advisory 2013	2014	2015	2016
Capital Charges							
(A) Municipal and Industrial - Long Term Subcontract [5]	$ 15	**$ 15**	**$ 15**	$ 15	$ 10	$ 5	$ -
Delivery Charges							
(B) Fixed OM&R [6]	$ 69	**$ 69**	**$ 73**	$ 76	$ 78	$ 81	$ 83
(C) Pumping Energy Rate 1 [7]	49	**53**	**49**	50	51	56	58
(D) Pumping Energy Rate 2 [8]	85	**n/a**	**n/a**	n/a	n/a	n/a	n/a
(E) Pumping Energy Rate 3 [9]	122	**n/a**	**n/a**	n/a	n/a	n/a	n/a
(F) Property Tax Equivalency [10]	30	**30**	**26**	23	23	24	26

Qualifications for Various Classes of Water Service

Long-Term Municipal and Industrial (M&I) Subcontract: M&I subcontractors.
Non-Subcontract: M&I users who are not subcontractors and the CAGRD.
Recharge (AWBA/CAGRD and M&I Underground Water Storage): The Arizona Water Banking Authority and M&I subcontractors and other Arizona entities who have valid Arizona Department of Water Resources permits and accrue long-term recharge/storage credits from this activity.

CENTRAL ARIZONA PROJECT
PRELIMINARY 2011/2012 RATE SCHEDULE

DIRECT UNDERGROUND WATER STORAGE
Units = $/acre-foot

	2010	Firm 2011	Provi-sional 2012	Advisory 2013	2014	2015	2016
Underground Water Storage O&M [11]							
Phoenix AMA	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8
Tucson AMA	15	15	15	15	15	15	15
Underground Water Storage Capital Charge [12]							
Phoenix AMA	$ 15	$ 15	$ 15	$ 15	$ 15	$ 15	$ 15
Tucson AMA	9	9	9	9	9	9	9

CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT ASSESSMENT RATES
Units = $/acre-foot

	2009/10	Firm 2010/11	Provi-sional 2011/12	Advisory 2012/13	2013/14	2014/15	2015/16
Phoenix Active Management Area							
Water & Replenishment Component [13]	$ 143	$ 140	$ 140	$ 140	$ 144	$ 157	$ 156
Administrative Component [14]	33	38	42	44	44	44	44
Infrastructure & Water Rights Component [15]	101	131	170	204	245	294	353
Replenishment Reserve Charge [16]	41	47	51	54	54	55	55
Total Assessment Rate ($/AF)	$ 318	$ 356	$ 403	$ 442	$ 487	$ 550	$ 608
Pinal Active Management Area							
Water & Replenishment Component [13]	$ 107	$ 110	$ 116	$ 120	$ 121	$ 133	$ 128
Administrative Component [14]	33	38	42	44	44	44	44
Infrastructure & Water Rights Component [15]	101	131	170	204	245	294	353
Replenishment Reserve Charge [16]	38	45	53	61	60	61	61
Total Assessment Rate ($/AF)	$ 279	$ 324	$ 381	$ 429	$ 470	$ 532	$ 586
Tucson Active Management Area							
Water & Replenishment Component [13]	$ 153	$ 155	$ 155	$ 161	$ 164	$ 166	$ 163
Administrative Component [14]	33	38	42	44	44	44	44
Infrastructure & Water Rights Component [15]	101	131	170	204	245	294	353
Replenishment Reserve Charge [16]	46	53	60	65	61	59	57
Total Assessment Rate ($/AF)	$ 333	$ 377	$ 427	$ 474	$ 514	$ 563	$ 617
Contract Replenishment Tax - Scottsdale [17]							
Cost of Water	$ 126	$ 133	$ 137	$ 137	$ 141	$ 139	$ 142
Cost of Transportation	0	0	0	0	0	0	0
Cost of Replenishment	0	0	0	0	0	0	0
Administrative Component [14]	33	38	42	44	44	44	44
Total Tax Rate ($/AF)	$ 159	$ 171	$ 179	$ 181	$ 185	$ 183	$ 186

ENROLLMENT & ACTIVATION FEES
Units = $/Housing Unit

Enrollment Fee [18]	$ 83	$ 107	$ 138	$ 165	$ 198	$ 237	$ 284
Activation Fee [18]	$ 81	$ 105	$ 136	$ 163	$ 196	$ 235	$ 282

CENTRAL ARIZONA PROJECT
PRELIMINARY 2011/2012 RATE SCHEDULE

NOTES:

1 Does not include the Capital Charge.

2 Rate is equal to M&I rate starting in 2011. This rate applies to all recharge customers. Rules regarding the eligibility for and use of this class are shown on page 1. For 2010, the recharge rate consists of Energy Rate 2 and a contribution toward covering a portion of the Fixed OM&R Rate.

3 The 2010 rate is obtained by adding the Fixed OM&R component, the Pumping Energy Rate 3 component, the M&I Capital Chargeand an equivalency tax component. Starting in 2011 Pumping Energy Rate 1 replaces Pumping Energy Rate 3 as a rate component.

4 Rate is the Pumping Energy Rate 1 component. Incentives may be earned for meeting delivery goals in three areas. Any incentives earned can be applied to Settlement Pool deliveries.

5 Capital Charge is paid on full allocation regardless of amount delivered; not included in delivery rates.

6 Fixed O&M costs divided by projected total water volumes plus a component to fund capital replacements. This amount is collected on all ordered water whether delivered or not.

7 Applies to all water deliveries starting in 2011. For 2010, water volumes were excluded for Recharge, AWBA Interstate and SRP bring-your-own power acre-feet. The calculation is pumping energy costs divided by projected volumes. This amount is collected only for water actually delivered as opposed to scheduled.

8 Energy Rate 2 is eliminated starting in 2011 due to new power agreements.

9 Energy Rate 3 is eliminated starting in 2011 due to new power agreements.

10 The rate is based upon the tax levy for the previous elapsed tax year divided by the average water deliveries (excluding Federal deliveries and water storage credits) for the three previous completed delivery years (e.g., for 2010, the tax equivalency is the levy for the 2008-2009 tax year divided by the average water deliveries for 2006, 2007 and 2008). The Advisory Rates are estimates. Note the 2010 rate has been revised.

11 Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.

12 Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBA for M&I firming, the CAGRD, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.

13 The Water & Replenishment Component is designed to cover the projected annual costs of satisfying replenishment obligations, including the purchase of long-term storage credits (LTSC) and the purchase and replenishment of water and effluent. The total volume of water to be purchased and replenished includes a sufficient volume to offset losses incurred during the replenishment process (generally 1% to 2.5%). For the Phoenix Active Management Area (AMA), replenishment will be accomplished at direct underground storage facilities (USFs) and groundwater savings facilities (GSFs) as well as through the use of LTSCs purchased from others. For the Pinal AMA, replenishment will be accomplished at GSFs. For the Tucson AMA, replenishment will be accomplished at USFs as well as through the use of LTSCs purchased from others.

14 The Administrative Component is designed to cover all CAGRD administrative costs. A $2/AF has been added to this component to help fund the CAGRD conservation program.

15 The Infrastructure & Water Rights Component is designed to generate funds to purchase long-term rights to water, and construct additional infrastructure facilities as the need arises in the future.

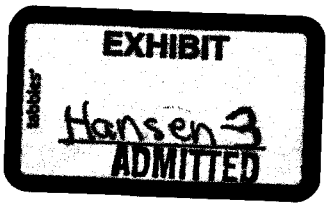
16 The Replenishment Reserve Charge is designed to cover costs associated with establishing a replenishment reserve of LTSCs as required by statutes. Water will be stored at a combination of USFs and GSFs in the Phoenix and Tucson AMAs. LTSCs purchased from CAP and others will also be used to help establish the replenishment reserve in the Phoenix and Tucson AMAs. In the Pinal AMA, LTSCs will be purchased from CAP in accordance with Board policy adopted on October 6, 2005. This charge will be levied as provided in ARS Sections 48-3774.01 and 48-3780.01.

17 The components of the Contract Replenishment Tax - Scottsdale reflect the provisions in the Water Availability Status Contract to Replenish Groundwater between CAWCD and Scottsdale. The rates reflect the assumption that Non-Subcontract CAP water will be available to meet the associated contract replenishment obligations.

18 The Enrollment Fee and Activation Fee reflect the fees established pursuant to the CAGRD Enrollment Fee and Activation Fee Policy adopted by the Board on May 1, 2008. A $2 per housing unit is included in the Enrollment Fee to help fund CAGRD's conservation program.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS:



Kristin K. Mayes
Gary Pierce
Sandra D. Kennedy
Paul Newman
Bob Stump

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICES BY ITS AGUA FRIA WATER DISTRICT, HAVASU WATER DISTRICT, MOHAVE WATER DISTRICT PARADISE VALLEY WATER DISTRICT, SUN CITY WEST WATER DISTRICT, AND TUBAC WATER DISTRICT	**Docket No. W-01303A-08-0227**
IN THE MATTER OF THE APPLICATION OF ARIZONA-AAMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS MOHAVE WASTEWATER DISTRICT	**Docket No. SW-01303A-08-0227**

NOTICE OF FILING CLOSING BRIEF
BY
CAROLE MCHALE HUBBS FOR PORA
SUN CITY WEST WATER DISTRICT

RESPECTFULLY SUBMITTED on May 15, 2009.

Carole McHale Hubbs

Carole McHale Hubbs
Attorney for PORA
21511 N. Limousine Drive
Sun City West, Arizona 85375-6557

reimburse AZ-AM for CAP charges. Each of the four water districts listed above have a CAP allotment but the water is not necessarily used in the district. The allotments are:

SCWWD:	2372 Acre Feet.	SCWD:	4189 Acre Feet
AFWD:	11093 Acre Feet	PVWD:	3231 Acre Feet

SCWWD and SCWD users have paid the Groundwater Savings Fee since 2001 but have not used any of the CAP water and have not received any direct benefit from the CAP water. Those who promote continuation of the Groundwater Savings Fee argue that there are indirect benefits to the aquifers from recharge stations. This is a moot claim at best for there is not a trace system in place to determine where recharge water migrates. If recharge of aquifers from input stations were true, then the water districts paying for CAP water used in recharge stations are paying for water utilized by users outside the boundaries of the water district since aquifers do not terminate at water district boundaries.

AFWD utilizes their CAP allotment to diminish aquifer use. The White Tanks Plant, a plant to treat surface water for residential use is located in the AFWD. The plant is scheduled for completion of Phase 1 (a) in 2009 and according to AZ-AM'S **NOTICE OF FILING POST HEARING BRIEF** Dated May 1, 2009, the first phase will be capable of treating 13.5 million gallons per day, (MGD). Thus, the treatment of AFWD'S allotment of 11,093 acre feet of CAP water will only utilize 73.35% of the plant's capacity in Phase 1 (a). AZ-AM states that completion of Phase 1 (b) will provide the capacity to treat 20 MGD. This second stage development will have the capacity to treat the total allotment of 20,885 acre feet of CAP water allotted collectively to the four water districts.

SCWWD requests that when Phase 1 (b) is completed and if SCWWD'S allotment of 2372 acre feet of CAP water is treated by the White Tanks Plant, SCWWD will receive direct use of the treated water that they have been paying for since 2001 or alternatively, SCWWD will be repaid for all amounts the consumers have paid in since 2001 in Groundwater Savings Fees.

1.60 ch'g per month
15,000 meter
1 600 000
160
2,400,000.

2,400,000
× 12
24,800,000
198,400,000 yr.

CONCLUSION.

For the reasons detailed above, SCWWD requests the ALJ and Commissioners to favorably consider PORA'S request to limit the percentage of rate increase to 52 % which will include stage one and two ACRM. Also PORA requests that serious consideration be given to SCWWD and SCWD to opt out of rate consolidation if they elect to due to their unique circumstances. Finally, PORA requests that special attention be given to the request of the SCWWD to receive direct treated water when possible or be repaid for the monies paid in, since the water district has not received any direct benefits from the Groundwater Savings Fee.

TESTIMONY

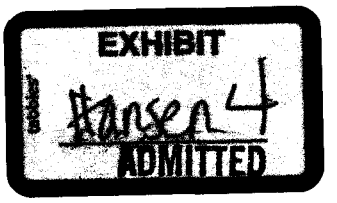
of

W.R. HANSEN

INDIVIDUAL INTERVENER

5/25/'10

Sun City West



HALF DOZENS REASONS TO DISENGAGE

from the

So -called "CONSOLIDATION" PROPOSAL

I. IDENTIFICATION IS A MISNOMER

The so-called "Consolidation" study has unleashed a plethora of observations, yet it has steadily sailed under the banner of a misnomer as it masquerades the fundamental characteristics of economic consolidation as it is traditionally viewed in the business world today,i.e.:

a. The proposals have not been couched in a manner to cause focus on centralization of product production,generally the centerpiece of consolidation which affords the major cost savings. In fact, the interconnected facility aspect of electric and gas utilities has been conspiciously absent or ignored for the water districts in the instant case,likely because it would be a improbable economic consideration for a company whose district could span over 892 miles It is also worth noting, that in the last decade the Arizona courts struck down an effort by Sun City West to become interconnect with Sun City for groundwater purposes. SINCE that time, the proposed route has become totally commercialized.

   Thus, the fundamental reason for consolidation is instantly dissolve

b. Cost reductions:

   The twin component of traditional consolidation is cost reduction, often the paramount rationale for it, yet is has been equally obscure in company testimony. While some modest staff reductions could exist in staff level accounting, the process would be devastating by preserving only capital accounts at the district level while annihilating expense accounts at each district level, which serve as the foundation for rate appeals.

   The lack of cost mitigation is at best exemplified by constrasting current Merit Rates (stand alone) with Accomodation Rates (consolidation options) and noting that in the change from Merit to 1st. option Accomodation rates, the range of the lowest rates increases by 52% while the range of the highest rates expand by 29%. The rate range under wastewater is even more devasating, with the highest rate increasing by 140.8%. It clearly signals that the cost reduction rationale is illusionary, creating a benefit for a few at the expense of many.

   When company officials were probed about the prospect of "out of control pension costs"(as reported by RUCO witness Ralph Smith) as to whether they might be mitigated by consolidation, the reponse by Townsend was negative.

No matter that 5 year costs have increased 425% at the local level, and 564% in contribution to parent company, and worse- that local pension costs had doubled from 2007 to 2009-ostensibly to offset the stock market decline losses on the pension reserves. That deficiency was pegged at $479 million by the witness, but again Townsend stated there was no intent to mitigate these costs by switching from defined benefit pensions systems to defined cost pension system.

Likewise, the prospect of reducing Management Fees assessed to each district by the Parent would not be reduced under consolidation, and they constitute the largest single cash expenditure. Thus, we are left with the reality- that cost reductions under this proposal appear to be a rather hollow hope.

II. LACK OF CUSTOMER APPEAL

In the early stage, it has only significant appeal to Anthem and Tubac, the principal beneficiaries of the consolidation bail-out proposal, and this comes at the expense of the other districts. Even those with modest gains initially, recognize that instant gratification will soon vanish.

Absent from the discussions, was any talk of an improved product or delivery system. While only 2 public hearings were held among the 8 district locations, the one in a substantially benefitted district drew only half as many the one in a district where the largest increase could transpire.

III. LACK OF HOMOGENIUS GROUPING OF DISTRICTS

There is a conspicious lack of homogenius grouping characteristics which generally provides added support for consolidation. In fact, by two broad categories the 8 districts are extremely heterogenius, as the following illustrations show, with the attendant problems they create for a consolidated grouping;

AGE:

The overall age range in terms of conception, from 1946 to 1998 for a span of 64 years. You end up with two logical age groupings;

1. 1946 to 1970 — 6 of the 8 districts. **AVERAGE 49yrs.**
   Sun City has oldest system
2. 1978 to 1998 — 2 of the 8 districts **AVERAGE 22yrs.**
   Sun City West is one of these

Sun City West, as the 2nd. youngest system, will likely be the 2nd. to last system to be totally renovated while it contributes to the renovation of 75% of the other systems.

RATE RANGE:

Under current merit rates: low is $16.73/High is 65.81 Multiple of 3.94%
Under consolidation rates: low is $25.33/High is $84.82 Multiple of 3.34%

What's alarming is the spread from low to high hasn't changed that much but the lowest rate has increased by 152% and the highest rate increased by 129.%

When you view the wide range of age of the Districts, where 75% average 49 years, while 25% average less than half that age-22 years you can observe the lack of uniformity in aging of the systems. Even more troublesome for consolidation is the extreme range of rates, which are reflective of the highly differing cost demands of the districts.All of which tells you these districts do not lend themselves to consolidation because of the hetergeneous nature of their age and current rates.

IV. RATE SHOCK MITIGATION

Rate shock should not be used as an advocacy position for so-called consolidation. It is a reality in rate regulation that rate shock will present itself from time to time. However, there is no justification for transferring the impact of rate-shock to other parties unrelated to its causation. From recent testimony of the Anthem witness, we have learned that FAS 92 does not preclude Districts from deferring major capital costs, providing the Commission properly administers their findings.

In Sun City West, several years ago we were forced to install arsenic treatment facilities. We have done this by ourselves, now incurrring both capital and treatment cost associated with arsenic. We never received any special federal grants or assistance and pragmatically accept this as our burden. However, on top of this we received a 60% increase last November, and face a 31.8% increase in wastewater currently. These reflect our problem and we bear the responsibility for their solution, asking only the other Districts do the same. We do not believe in water district welfare and resist its implementation.

This discussion does beg for some legal question consideration which centers on Article 15, section 15, of the Arizona Constitution and relating to discrimination in the assessment of rates. It seems one should be most cautious in attempting to assess rate damage on another party without any foundation of causation.

On the basis of these facts, rate-shock response by cost transfer to unrelated parties should be avoided on general principles, and least of all embraced as an effective tool of so-called consolidation when more reasonable and rational options exist.

V. IT UNWITTINGLY CREATES UNDESIREABLE INCENTIVES

By its very design, it proffers an opportunity for a water company to troll for inefficient or capital starved companies, bring them into the consolidated districts while seeking a sanctioned levelization of their rate which transfers the burden to a economically healthy district. Ironically, two advocates of consolidation is this case have embraced this concept as a beneficiary aspect of consolidation.

Neidlinger, in a recent but undated testimony, on page 5 & 6 wrote; "Consolidation allows the company to acquire small water & wastewater systems in disrepair and make needed plant improvements without imposing rate shock on <u>their</u> (emphasis added) customers."

Magruder, in his testimony of 5/3/'10, page 52,line 22 and again on page 56 states "The cost of specific programs (i.e. arsenic in Tubac-added)

should be shared by all customers rather than burdening those of the affected area...."

In my opinion, these are not advantages to be associated with so-called consolidation, even though advanced by well-meaning and dedicated proponents. Rather they speak to the vast philosophical divide that this issue entertains, causing some to replace logic with intent.

We find ourselves with a mechanism that would condone the beneficiary transfer of capital cost and operational expense from the causation party to the innocent member of the group. This is not a healthy goal and merely masks water utility welfare.

VI. ECONOMIC PRINCIPLE:

Again, in my reading of Articel 15, Section 15, it appears to place a strong emphasis on what I define as "Merit Rates(a/k/a Stand Alone) meaning the rate you deserves which has been determined by GAP accounting principles and sanctioned by the Commission. This whole process of accepting a monopolistic aberation to a fundamentally capitalistic system must be done with great caution , as has basically been true of regulated commerce for years. The moment you begin to tinker with basic precepts, you are beginning to mount a slippery slope.

The moment you begin to contradict a system which incentivizes effficiency, protects against capital waste or excesses,all while promoting some degree of competitiveness, you are marshalling a disservice to the customer. That would most certainly be the product of "Accomodation" rates which is nothing more than a social policy that discriminates for some and inherently against others. This is most assuredly bad policy in our perceived present economic policy.

BEFORE THE ARIZONA CORPORATION COMMISSION

KRISTIN K. MAYES
Chairman

GARY PIERCE
Commissioner

PAUL NEWMAN
Commissioner

SANDRA D. KENNEDY
Commissioner

BOB STUMP
Commissioner

EXHIBIT
Hansen 5
ADMITTED

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	DOCKET NO. W-01303A-09-0343
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTEWATER DISTRICT	DOCKET NO. SW-01303A-09-0343

CONSOLIDATION & RATE IMPACT
of
W.R. HANSEN
Individual Intervener
May 3, 2010

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EXECUTIVE SUMMARY

As per the charge of A.C.C. Chair Mayes, in a letter filed on 4/12/08, in conjunction with Decision # 71410, wherein she asked participants in that case to,"...make an analysis addressing the predicted impact of statewide & select...consolidation of the Campany's water districts and to propose combinations of districts where potential benefits outweights the limitations of consolidation efforts, and an analysis of rates and operations under a statweide consolidation of the Company's water districts."

This edict has triggered a plethora of exhaustive research on her mandate, which, in this writer's view, does absolutely nothing to enhance the radical direction in which consolidation would direct us. It only reaffirms and substantiates some very fundamental and adverse conclusions; (1) it plainly assists some districts in short term strained circumstances at the expense of hurting others.This was very clearly substantiated in Decision # 71410 when Arizona/American executive Broderick,on page 48 of that decision states,"...he experimented with residential rate designs, but it did not change his conclusions that in order to achieve a total rate consolidation, the rates in Sun City & Mohave would increase significantly,(136% & 37.22%) and that the major <u>short term</u> beneficiaries would be Anthem water(-47.74%) and Tubac(-47.13%) and Havasu (-42.90%) with the only largely unaffected area being Paradise Valley." [emphasis added]

In that study, only one party supported the consolidation, the representative from Tubac, which district gained a 47.13 reduction vs. an increased rate.

(2) the increase level of service is not guaranteed except where the invested capital of one community is confiscated in order to enhance

the service level of another district. Meanwhile, the benefactor district enjoys no gain in service level but is inflicted with a higher rate which is extracted for the sole purpose of benefiting another district. This takes on all the appearances of a collaborativ utility rate payer welfare system.

(3) It incentivizes any inefficient or capital-troubled district to to seek to join an existing consolidated amalgamation of water districts for the purpose of transferring, and subsequently lessening the burden of its rate payers while imposing an economic burden on members of the consolidated group. Should consolidation be adopted, it will precipitate a gravitation flow in this bail-out direction.

(4) It likewise incentivizes corporate bodies to troll for such disadvanted districts, as described in # 3 above, recognizing that a utility commission that has initially embraced the rate payer welfare system will subsequently welcome any troubled sojourner.

(5) The war-cry for consolidation is usually resonnated from the electric & gas utility camps where "interconnection" is more plausible and economically rational. Water district are traditionally independent. To pursue interconnection, as a service benefit, within Arizona American could easily approximate over 892 miles of new heavy piping making it an astronomical economic implausibility.

(6) As one reviews the Water Infrastructure Finance Authority of Arizona's 2008 survey of the states 426 water districts and 133 wastewater districts, you can quickly focus on the extreme lack of homogeneous characteristics among all these districts. They attempt to categorize them into 32 types of structure and physical characteristics with additional quantification. But one can easily comprehend the diversity of districts by reflecting upon the vast range

of rates among water dsitricts, running from $4.64 monthly way up to $201.78 monthly. Among wastewater districts, they range from $2.00 to a high of $80. monthly. This wide range of rates capitalizes the obvious diversity of physical charactertics,needs and other factors which drive the composition of a rate, proving once more that consolidation is both implausible for water utilities, if not detrimental.

(7) Finally, one could contend that consolidation would constitute "discrimination" against a district adversely impacted in order to benefit another district, which is contrary to the Arizona State Constitution: Article 15, Section 12, which reads;

"All charges made for services rendered, or to be rendered,by public service corporations within this state shall be just and reasonable, and no discrimination in charges,service, or facilities shall be made between persons or places for rendering a like and contemporaneous service,except that the granting of free or reduced tranportion may be authorized by law, or by the corporation commission,to classess of persons described in the act of Congress approved February 11,1887,entitled An Act To Regulate Commerce, and the amendments thereto, as those to whom free or reduced rate transportation may be granted." This bears study and will most assuredly will be pursued.

Consolidation is fraught with so many adverse aspects in the water utility field that it does not deserves adoption. It is a highly controversial issue which will precipitate social unrest needlessly.

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE NUMBER.

My Name is W.R. Hansen. MY residential address is 12302 Swallow Dr., Sun City West, Arizona 85375,and my phone number 623-556-9873.

Q. WHAT IS YOUR CURRENT STATUS?

I am a retired individual.

Q. PLEASE DESCRIBE YOUR VOCATIONAL EXPERIENCE & EDUCATION.

I have a Bachelor Degree in Education with a Minor in Business Administration with some additional post graduate education. For 26 years I was a business co-owner with my brother, 15 years in Trade Association management. During my business career, I also spent 12 years in the Iowa STATE Legislature. Following my association work, I spent 6 years on an appointive state commission, serving half of that time as Chairman of the Commissic

Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION ?

Yes, but it was at a Public Hearing they held in Sun City West. However, I was deeply involved in the Rate Hearing last fall & attended some of the formal hearings last March but did not testify. I also testified in April of 2010.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

I wish to offer Direct Testimony on Consolidation and its impact on rates on a unified basis as contrasted with the rebuttal testimony I filed on ApRil 7,2010.

Q. WHAT BACKGROUND DO YOU HAVE IN A WATER UTILITY CASE?

Beginning in the fall of 2008 through 2009, I spent over 4 month as a member of the Sun City West Homeowners Association(P.O.R.A. Water Rate Committee studying & preparing testimony for W-01303A 08-0227 & SW 01303A-08-0227, where we met weekly for over 4 mont As stated above, I participated in a Commission Hearing in Sun City West, and attended some of the hearings last March but did not testify. I did testify in the hearings this April of 2010.

Q 1 WHAT VIEWPOINT DO YOU WISH TO EXPRESS AT THIS TIME? ON THIS PROPOSED CHANGE IN POLICY?

I deem it a policy issue inasmuch as it defies the traditional process in the calculation of rates predicated on the individual districts invested capital in its singularly functioning system as well as the revenues and expenses associated with the unique characterizations of that district.

Q 2 DO YOU THINK "CONSOLIDATION" IS THE APPROPRIATE NAME FOR THIS ISSUE?

No, I do not-in fact I would have characterized it as a classic misnomer. Others have previously spoken of it in various terms, classifying it an "Equalizer," Levelizer," or rate payer welfare. In essence, it is a scheme to redistribute burdens predicated on the confiscation of the prudently invested and functioning districts to prop up the under-invested districts who-whether by a variety of circumstances- find themselves in an adverse fiscal position in terms of capital needs or operational excesses for their size.

Q 3 WHAT COMPARABLE GAINS MIGHT ONE ANTICIPATE IN THE LEVELIZATION OF THE RATE STRUCTURE?

Virtually none! Conceivably at the Commission level, it may be able to eliminate an Administrative Judge and some attendant personnel by virtue of fewer rate cases and perhaps a miniscule reduction at the company level but that would be less likely. Conversely, establishing a while new system and covering a massive layer of districts simultaneously could trigger increased costs. It could reduce the time spent by Commissioners but whether you would ever reduce their compensation is problematic. In sum total, any cost reduction of staff collectively, in a monopolistic style of business, would more likely result in a trickle and is unlikely to ever be seen by the rate payor. Potentially, while it could appear to be time-savings for the A.C.C., the greater depth and complexity of the case could offset it. Significant wind-falls would be experienced by 3 districts, i.e. Anthem, Havasu& Tubac but some would suffer and one particularly- Sun City.

Q 4 CAN YOU BE MORE SPECIFIC ?

Yes, Tubac & Anthem in cases pending could experience a doubling of their current rates, as was asserted by staff at the 2/10/10 Rate Consolidation Seminar[1] whereas according to Exhibit B from Rate Case # W-01303A-08-0227 on page 47 & 48 of Docket # 71410 under so-called "consolidation" would be gifted with reductions of 47.74% for Anthem & 47.13% for Tubac while Sun City would be saddled with a 136% increase. This observation is similar to what Broderick expressed on lines 19-2 of the same document, and on p. 49, lines 1-8.[2] Also, on lines 9-14 of page 49, PORA suggests their opposition to consolidation and suggests that together with Sun City, they be left out of the consolidation format. RUCO expresses its oppostion because not all districts were considered, in line 15-20 on p. 49.[3] While staff supports it in concept, not in the instant case and acknowledged on p. 50 with Company Counsel that at least 10 deficiencies exist prior to rate consideration.[4] Only one party recommended consolidation, Magruder of Tubac.[5]

Q 5 WHAT HAS PROMPTED THE INTEREST IN THIS APPROACH ?

It is a hangover from the last rate case that concluded on November 12,2009. It is likely prompted by, and I can only speculate, that it may have fermented into consideration in that it is used sometimes with gas and electric utilities.

Q 6 WOULD THAT NOT SUPPORT ITS CONSIDERATION.

Absolutely not for gas and electric utilities are interconnected in those cases, utilizing common production facilities whereas water utilities in the instant case are not in that type operational mode. They have their own invested facilities,unique to their district and their own unique costs and revenues. While some common labor and management has been allocated in accordance with accepted accounting practices, production and distribution in most instances remain separated. Some utility districts, such as Sun City West, have been combating the arsenic problem and our rate payors have absorbed the capital and operational cost. Next door is Sun City & it does not have arsen

(1) Staff @ Rate Consolidation Conference on 2/10/10
(2) Docket 71410,Schedule B,p 48 Broderick l. 19-25 on p.48,1-8 on
(3) Ibid 2, p. 49, lines ,PORA lines 9-14,RUCO 15-20
(4) Ibid 2, p. 50,lines 1-15
(5) Ibid 2, p. 50, lines 16-19

Now we learn that Tubac has arsenic, while Anthem is facing fiscal problems so I can imagine that both would be cheerleaders for consolidation or levelization of rates since it would deposit their extra burdens on the other districts. Fortunately for Tubac,they received a one million dollar stimulus federal grant,something unknown to Sun City West as we started shouldering the arsenic costs a few years ago on the backs of our local rate payors.

Q 7 **WHAT OTHER ASPECTS MAKE LEVELIZATION DIFFICULT AMONG WATER UTILITIES IN TERMS OF EQUITABLY RESPECTING DISTRICT'S UNIQUE DIFFERENCES ?**

It does give one pause when suddenly a trade association of 100 investor utilities (some as large as 400,000 meters) signs up as an Intervener in a case devoted to 5 small utility districts, other than to pursue their goal of statewide water utility rate consolidation.

The main problem with water utility districts in Arizona is the lack of homogeneous grouping for a singular rate setting. The Water Infrastructure Finance Authority of Arizona illustrates this fact in their latest survey of 2008," **WATER & WASTEWATER RESIDENTIAL RATE SURVEY for the state of ARIZONA."** [6] On p. 9 they declare there are 426 entries for drinking water districts, varying in rates from@$4.64 month charge for Phoenix to $201.78 monthly charge for Highland Pines. There are 133 waste water districts with monthly rates that vary from $2.00 in Tolleson to $80.00 in Kings Ranch. [7]

The characteristic differences among water district is best illustrated by their 3 major groupings; #1 Pricing of charges with 7 subdivisions/[8]#2 Cost factors used for rates with 11 subdivisions/[9]# 3 Types of Ownership with 4 subdivisions.[10].

Thus with 3 major divisions, you add 22 subdivisions,ending up with 25 different ways to characterize a district.

(6) Cover page of Water & Wastewater Survey
(7) Ibid # 6,p. 9 Cost variances of districts
(8) Ibid # 6,p. 5 & 6, Pricing systems
(9) Ibid # 6,p. 6 & 7, Cost factors for calculating rate
(10) Ibid #6,p. 9, Types of Ownership

Q 8 **ARE THERE OTHER CHARACTERISTIC DIFFERENCES?**

I'm sure there are more but I'll just mention 2 other differences in water districts that have major implications. Sun City & Sun City West are built-out communities, that is there is no potential for additional customers and as a result its system is somewhat more static than those in expansive areas.Also,costs & revenue tend to be quite static. Additionally, the age of a system can make a significant difference in capital demands. From the attached memo, you can see the age of systems range from 25 years old to 64 years old, a span of age difference of 39 years. [11] That factor alone has huge expenditure implications.

Q. **DO YOU AGREE WITH STAFF CONSOLIDATION PROPOSALS FOR SUN CITY & SUN CITY WEST, AS SET FORTH ON PAGE 22,COMMENCING WITH LINE 9?**

Yes, I concur with the rejection of the possible consolidation district by the Staff as shown at the bottom of page 23 commencing with line 21. I would, however, offer additional reasons,though Michlick alludes to the possibility of subsequent testimony of Elijah Abinah.

Q. **WHAT INDEPENDENT STATEMENTS WOULD YOU OFFER.**

While there is a proximity factor that could be favorable, it is more than outweighted by other factors.

Q **WHAT MIGHT THOSE FACTORS BE?**

#1. The age disparity in the two systems. Sun City West is 33 year old,while Sun City is 50 years aold resulting in in a deterioration rate that would not be on parallel paths.

In fact, in a 4/15/10 filing by Townsley & Broderick, Townsley adopts the prior testimony of Christopher C.Buls, stating, "Sun City has the oldest infrastructure of any of the company's, and the infrastructure is at the point in in the asset cycle where significant capital will begin to be invested.[12]

(11) Memo from Bradley Cole of 1/22/09

(12) Remarks of Christopher Buls

Q. **ARE THERE OTHER FACTORS?**

Yes, a 2nd. would be a differential in system styles which could impact rates. Sun City contracts out at least a portion of its wastewater treatment to another entity, whereas in Sun City West we have a complete treatment of all wastewater.

Q. ANY OTHER FACTORS?

Yes,a differential in special conditions. SCW has arsenic and as a result it has made.....and continue to make,a substantial commitment to accomodate this problem. On the other hand, Sun City does not have arsenic.

Thus, the initial logic of pairing these two cities because of proximity pales in light of greater disparities. Beyond that, in my initial discussion of the subject I think I have set forth a bevy of rational objections to the so-called-"consolidation."

Q. Do the more recent consolidation configuration improve over last year.

When you rank the relative position, from lowest rate to highest and then follow the change of their position under I.,II., or II and you pay particular attention to the problem districts, Anthem, Tubac and Mohave, as one tends to improve, the other worsens. Likewise, the advantaged rate districts now would play a disproportionate burden to improve the high rate districts. Any way you slice it, it becomes "Rate payer Welfare.

Q Does this conclude your testimony for now.

A YES

EXHIBITS

assumptions and decision points that must be considered.[226] Mr. Broderick attached the results of one consolidation scenario to his prefiled rebuttal testimony. That scenario is attached to this Decision and incorporated herein as Exhibit B. Exhibit B includes all eight of the Company's water districts at the Company's requested revenues in the original application filed in this case, and at the present rates for the Sun City Water district. Exhibit B shows the typical 5/8 x 3/4 inch meter residential customer bill on a pre- and post- consolidation basis for each of the water districts, with a consolidated monthly basic service charge of $15.59 and three tier commodity rates of $1.50, $2.50 and $3.25. That scenario would result in the following total residential revenue and percentage shifts (in total changes net to zero) by district:[227]

District/Revenue shift increase/(decrease)		Rate increase/(decrease)
Anthem	($4.6 million)	(47.74 %)
Tubac	($0.3 million)	(47.13 %)
Havasu	($0.6 million)	(42.90 %)
Agua Fria	($3.5 million)	(17.75 %)
Sun City West	($1.3 million)	(15.69 %)
Paradise Valley	$0.3 million	2.95 %
Mohave	$1.7 million	37.22 %
Sun City	$8.4 million	136.00 %

Mr. Broderick stated that he experimented with the residential rate designs, but it did not change his conclusion that in order to achieve a total residential rate consolidation, the rates in the Sun City Water and Mohave Water districts would increase significantly, and that the major short term beneficiaries would be Anthem Water, Tubac Water, and Havasu Water districts, with the only largely unaffected water district being Paradise Valley Water.[228] The Company's witness Mr. Townsley further addressed the difficulties and benefits of rate consolidation, and laid out a specific partial rate consolidation proposal that involves the levelizing of net plant investment per customer

[226] *Id.* at 5-6.
[227] *Id.* at 7.
[228] *Id.*

by means of a systems benefit charge to be assessed on the variable usage rate per gallon.[229]

Based on its analysis, the Company believes that with the magnitude of revenue shift that would be required, its customers are not yet ready for an eight district consolidation.[230] The Company contends that ordering rate consolidation in this proceeding would be impractical, and could lead to unintended consequences, because at this time, there are more questions than answers, and to get the answers, data must be gathered, informed public input must be received, and difficult policy choices must be made. The Company believes that a subsequent parallel proceeding is needed to provide a forum for all parties, the public and the Commission to consider consolidation.[231]

PORA states that it is unprepared to consider consolidation of rates.[232] PORA agrees with Staff that rate consolidation is a complex issue with both public and policy implications, that public outreach should be undertaken prior to consolidation, and that adequate notice of consolidation should be given to all affected ratepayers.[233] PORA believes that Sun City West Water and Sun City Water districts have unique attributes which should entitle them to an option to not participate in rate consolidation if and when consolidation is implemented.[234]

RUCO states that it opposes consolidation of rates in this proceeding because only seven of the Company's thirteen water and wastewater districts are being considered in this proceeding, and because consolidation in this case would result in the inequitable spread of costs over some, but not all, of the Company's water districts.[235] RUCO contends that while there may be good reasons for rate consolidation, the reasons should be thoroughly vetted on the record and then applied evenly to all the districts.[236]

Staff states that it supports rate consolidation, but urges the Commission to proceed with caution, and does not recommend consolidation in the instant case.[237] Staff states that rate consolidation is a complex issue that has both public and policy ramifications which require careful

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[229] *Id.* at 11-18.
[230] *Id.* at 8.
[231] Company Brief at 52.
[232] PORA Brief at 4.
[233] *Id.*
[234] *Id.*
[235] RUCO Reply Brief at 8-9.
[236] *Id* at 9.
[237] Staff Brief at 20.

consideration in order to avoid any unintended consequences.[238] Staff is also concerned that the notice in this case was not adequate to notify affected ratepayers if consolidation were to be accomplished in this proceeding.[239]

Staff's witness Mr. Abinah agreed with the Company's counsel that several issues need to be addressed prior to rate consolidation, including:

- How to deal with different numbers of tiers and breakover points across districts;
- How to account for differing uses of water for residential irrigation across districts;
- Whether commercial rates should be consolidated at the same time as residential;
- How cost of service and returns by customer class should be affected;
- How public input can be maximized;
- How customers can be educated about the pros and cons of rate consolidation;
- How parties will participate in the public process;
- Whether to phase in or immediately implement consolidated rate structures;
- Whether wastewater rates should also be consolidated; and
- What economies of scale would be accomplished by consolidation.[240]

Only one party is recommending rate consolidation in this proceeding. Mr. Magruder recommends that consolidated rates be implemented in the water districts at this time, and that in the next Arizona-American rate case all other water districts be integrated into the consolidated rate structure.[241]

Staff states that if the Commission wishes to consider rate consolidation, this docket may be left open for the sole purpose of rate design for consolidation purposes, with the possibility of a consolidation of this docket with a future docket for the purpose of considering consolidating rates of Arizona-American's water districts.[242] RUCO states, however, that it would not support reopening this docket or the Company's next rate case docket for the purpose of applying a new rate design to

[238] *Id.*
[239] *Id.*
[240] Tr. at 892-97.
[241] Magruder Brief at 27; *see also* Magruder Reply Brief at 19-27.
[242] Staff Reply Brief at 5.

Water Infrastructure Finance Authority of Arizona

WIFA

2008

Water and Wastewater
Residential Rate Survey for the State of Arizona

Water Infrastructure Finance Authority of Arizona
1110 West Washington, Suite 290
Phoenix, Arizona 85007
Telephone: 602.364.1310
Toll Free: 877.298.0425
Website: www.azwifa.gov

EXHIBIT 6 COVER PAGE

E.

Report Summary

INTRODUCTION

The Water Infrastructure Finance Authority of Arizona is pleased to provide this 2008 Residential Rate Survey for drinking water and wastewater systems. This survey provides data on the unit rates and total monthly charges assessed by utilities throughout Arizona for water consumed and/or wastewater generated. The 2008 survey presents data as of January 1, 2009; where information as of this date was not available, the most recent provided data was utilized.

This survey is limited only to the monthly base and usage charges assessed by Arizona utilities. No data was collected on other charges involved with the provision of water and wastewater service, such as connection charges, tap fees, impact fees, stand-by charges, late charges, etc. Nor is there any inclusion of sales taxes, sanitation charges, or other fees and surcharges that are sometimes included on a residential monthly water bill.

ARIZONA RATE STRUCTURES

There are many different rate structures for water and wastewater systems currently in effect in Arizona. The type of rate structure employed by a utility can have a significant impact on a customer's usage patterns and monthly bill for service. As noted in the American Water Works Association Manual M-1, an authoritative source for ratemaking throughout the United States, the most common types of rate structures include, but are not limited to:

Uniform Volume Charges - a single charge per unit of volume for all water used.

Declining Block Rates - a schedule of rates applicable to blocks of increasing usage in which the usage in each succeeding block is charged at a lower unit rate than in the previous blocks. Generally, each successive block rate is applicable to a greater volume of water delivery than the preceding block.

EXHIBIT 8. p. 5 & 6

-F-

Increasing Block Rates - a schedule of rates applicable to blocks of increasing usage in which the usage in each succeeding block is charged at a higher unit rate than in the previous blocks. Generally, each successive block rate may be applicable to a greater volume of water delivery than the preceding block. The intent of an increasing block rate is to encourage conservation by providing a financial disincentive to consumers for increasing amounts of water use.

Lifeline Rates - rates applicable to usage up to a specified level that are below the cost of service for the purpose of meeting the social goal of providing minimum water requirements to qualified customers at a below-cost price.

Off-Peak Rates - rates charged for usage during designated off-peak periods.

Seasonal Rates - higher rates that may be charged during the summer months when a system peak occurs, which requires facilities generally not needed to meet lower winter loads. These rates are based on the cost of service variations with respect to system seasonal requirements.

Fixed Monthly Charges - usually applicable to wastewater systems; involves the assessment of a single fixed charge for service regardless of the amount of water consumed or wastewater discharged. This charge can also be based several other factors, including the number of drainage fixtures, rooms, or amount of frontal footage of a property.

The type of rate structure implemented by a utility may have significant economic, social, and policy implications for the affected community. For example, a utility that charges for service based on Increasing Block rates will likely have a different total charge for a given level of usage than a utility that charges based on uniform rates. In addition to recovering sufficient revenues to fund operations, specific rate designs can be used to enforce policy goals, such as conservation (Increasing Block rates), system efficiency (Off-Peak rates), or assistance to needy or low-income ratepayers (Lifeline rates).

Furthermore, there are other factors within the type of rate structure implemented that may also have an impact on a customer's monthly charges. For example, some utilities choose to implement a high fixed charge and a lower volumetric rate, while other utilities do the opposite. Certain utilities provide a large allowance of gallons within the monthly minimum charge, others provide a limited allowance, and still others provide no usage allowance at all. On the wastewater side, some utilities charge a volumetric rate based on a "winter average", which sets a maximum usage level at the average of the customer's water usage during the winter months. Other utilities base wastewater charges on a straight percentage of total water volume, while still others use a fixed monthly charge.

Many variables effect the determination of a utility's cost of service and the ultimate rate it implements for its consumers. These variables can result in significantly different total costs and rates between even neighboring utilities. These variables include, but are not limited to:

- **Water Source** – Is the utility using ground water, surface water, or a combination? If ground water is used, what is the depth from which the water must be extracted? How extensive a treatment process is required to convert the raw water into potable water for

EXHIBIT 9 p.6

-6-

end users? Is the utility receiving water as a consequence of a federal project, i.e. dam, that would result in lower rates than if the utility had to incur the cost of constructing its own reservoir?

- **Transportation/Distribution** – Are the utility's customer base primarily rural or urban? Is the customer base densely populated or more widely disbursed?
- **System Age** – Is the system older, requiring more repair/replacement expenditures, or newer, installed to service the state's rapid growth of the past decade?
- **Economies of Scale** – Is the system larger and better positioned to take advantage of the economies of scale inherent in water and wastewater systems?
- **Grant Funding** – Is the utility eligible for state and federal grants to offset some of the costs of system repair and expansion?
- **Use of Tax Bonds** – Is the system able to, and does it choose to, finance a percentage of capital expenditures through the issuance of tax bonds (financed through property or sales taxes) as opposed to revenue bonds (financed through user rates)?
- **General Fund Subsidies** – (particularly applicable to municipal utilities) Are the utility's rates being used to offset a portion of the General Fund through contributions? To the contrary, are the utility's rates not covering its cost of service, thus requiring a subsidy from the General Fund in order to meet all expenses?
- **Return on Investment** – (particularly applicable to private sector utilities) What is the utility's allowed rate of return on investment?

Because of these fundamental cost differences between utilities, a high rate or a low rate does not necessarily reflect the efficiency of the utility's operation. Therefore, the results of this survey alone should not be used to judge the effectiveness of the operation of any specific utility. Instead, this survey will be useful by providing general comparisons between systems and communities.

SURVEY METHODOLOGY AND KEY FINDINGS

This is the first year the survey was available via the internet along with the traditional mail, fax and email versions. The survey was offered through SurveyMonkey, which is an online surveying tool started in 1999 that assists companies and individuals with surveying needs. The online version was very successful for its first year in operation. The online survey appeared to be especially helpful for the companies representing multiple utilities. As a result, 49 water utilities submitted 92 water surveys and 23 wastewater utilities submitted 28 wastewater surveys online. All other submissions were via mail, fax or email. Ease of accessibility is a key contributing factor to the success of a survey such as this, and WIFA will continue to explore new methods for distribution and collection of data.

EXHIBIT 9 , p 7

-H-1-

A total of 426 database entries for drinking water systems in Arizona are presented in this survey. (Some utilities have more than one entry due to seasonal rates or multiple geographic areas.) According to the data collected for these systems, the monthly water charges for 7,500 gallons of water consumption ranged from $4.64 of the seasonal summer rates for the City of Phoenix, to $201.78 for the Highland Pines Drinking Water Improvement District. The average monthly charge for 7,500 gallons of water service was $35.03, up 2.97% from the 2007 survey, and the median monthly charge was $32.59, an increase of 5.20% over the 2007 survey rates.

A total of 133 database entries for wastewater systems in Arizona are presented in this survey. According to the data collected for these systems, the monthly wastewater charges for 5,000 gallons of wastewater ranged from a low of $2.00 for the City of Tolleson to a high of $80.00 for the Kings Ranch Unit II Treatment Plant. The average monthly charge for 5,000 gallons of wastewater service was up 7.45% from the 2007 survey to $26.08, and the median monthly charge was $23.00, an increase of 8.18% from the 2007 survey data.

This Report Summary overview section includes a number of tables and graphs that provide a statistical summary for both the Drinking Water Survey (Exhibits A-G) and the Wastewater Survey (Exhibit H & I) Both median and average data are provided by:

- Statewide Total
- Ownership Type
- Annual Revenues
- Number of Connections
- County Served

Data is also presented by Ownership Type for the various rate structuring methods used for Drinking Water Systems.

-H-2-

EXHIBIT 10 & 7 IBID 6

FOOTNOTE # 11

JUNO
Email on the Web

Print Message | Close

From : Joni.McGlothlin@amwater.com
To : jobobaz@cox.net
Cc : Joni.McGlothlin@amwater.com, c.ullman@juno.com, larry@lwoods.com
Subject : AAW MORE ANSWERS
Date : Fri, Jan 16, 2009 05:12 PM

Hi Bob,

Here is the second half of the answers to your questions straight from our director of Operations:

The following is the last piece of information for PORA. The age of our water and wastewater systems are as follows.

Tubac Water - 1958 and newer
Paradise Valley Water - 1946 and newer
Agua Fria Water - 1970 and newer
Sun City West Water - 1978 and newer
Mohave Water (BHC) - 1964 and newer
Mohave Wastewater - 1985 and newer
Havasu Water - 1970 and newer

****

Bradley J. Cole
Director of Operations, Central Arizona
Arizona American Water
15626 N. Del Webb Blvd.
Sun City, AZ 85351-1602

Testimony Summary for Paul G. Townsley:
Page 2

Mr. Townsley also will adopt the pre-filed direct testimony of Christopher C. Buls, as follows:

Arizona-American supports the implementation of an infrastructure improvement surcharge in the Sun City Water District and a pro forma adjustment for certain assurance fees related to transferring the Anthem water lease from Del Webb to Arizona-American Water Company.

Sun City Water has the oldest infrastructure of any of the Company's, and the infrastructure is at point in the asset life cycle where significant levels of replacement capital will begin to be invested. The qualifying assets would be limited to replacements of existing assets, including replacement mains, hydrants, meters (including AMR replacements), services, tanks and booster stations.

EXHIBIT
MAGRUDER-1
ADMITTED

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT.	**Docket No. W-01303A-09-0343**
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTE WATER DISTRICT.	**Docket Nos. W-01303A-09-0343**

DIRECT TESTIMONY OF MARSHALL MAGRUDER IN REBUTTAL TO RATE STRUCTURE AND RATE CONSOLIATION TESTIMONIES BY THE COMMISSION STAFF AND ARIZONA-AMERICAN WATER COMPANY

3 MAY 2010

Marshall Magruder, a Santa Cruz County Arizona American Water Tubac Water District customer, a Party in Dockets W/SW-010303A-08-0227, approved as an Intervenor in these Rate Design and Consolidation proceedings, submits his direct and rebuttal testimony to the Commission Staff's Rate Consolidation Proposals and Testimony of 29 March 2010 and the Arizona-American Water Company Rebuttal Testimony of 7 April 2010.

Herein are proposals based on Commission Staff and AAWC testimonies and concern

a. Rate Consolidation for all water districts and rate categories
b. Rate Consolidation for all sewage water districts

c. Rate Structures designed to provide a lowest rates for lowest consumption users (such as those on limited incomes) and increasingly higher rates for the highest consumption users to conserve water throughout Arizona by sending "price signals" to the highest consuming water users, including residential, businesses and industrial customers.

d. Rate Structures design includes five tiers (reversed inclined blocks), so customers can "see" and move from one rate to a lower rate more easily, by using less water.

e. Consolidation of all "Fees and Miscellaneous Charges" into one schedule

f. Consolidation of the Company's "Rules and Regulations" into a user-friendly document

g. "Water Demand Side Management (DSM)" programs proposed to include specified performance measurement objective criteria and goals for all rate categories with "water" audits, and

h. Establish a Water Leakage program with Incentives and Penalties to reduce all water losses in all districts.

My conclusions are in best interest for the customers, the Company and the Commission with consolidated rates that implement water conservation measures with steep inverse slope tier blocks with others recommendations herein for consideration and adoption by the Commission.

This Testimony used the Company's AZW CONSOL V3 program for Schedules H-1 and H-2 herein that can reproduce the same results. A CD-ROM will be provided, if requested, however, there will be a delay due to being on travel through 14 May.

I certify this filing has been emailed or mailed to the Commission, Company and parties on the Service List. My e-mail address is provided below.

Respectfully submitted on this 3rd day of May 2010

MARSHALL MAGRUDER

By _____

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PO Box 1267
Tubac, Arizona 85646-1267
(520) 398-8587
marshall@magruder.org

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DIRECT TESTIMONY
OF
MARSHALL MAGRUDER
AND REBUTTAL
TO
RATE STRUCTURE AND
RATE CONSOLIDATION TESTIMONIES

BY THE
COMMISSION STAFF AND
ARIZONA-AMERICAN WATER COMPANY

3 MAY 2010

IN THE MATTER
OF THE APPLICATIONS OF
ARIZONA-AMERICAN WATER COMPANY,
AN ARIZONA CORPORATION,

FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT
(ACC Docket No. W-01303A-09-0343)

AND

FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTE WATER DISTRICT
(ACC Docket No. SW-01303A-09-0343)

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Marshall Magruder in
Rebuttal to Rate Structure and Rate Consolidation Testimonies by the Commission Staff and Arizona-American Water Company

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Testimony Summary, Conclusions and Recommendations

This testimony proposes a new Rate Structure so that total revenue for the Company is reduced by only $514 when all water districts are consolidated. The total residential revenue was reduced by 3% and commercial revenue increased by 13%. A water conservation-oriented Rate Structure with a low and fixed-income "lifeline" rates has been used with the Company's model to meet the total consolidated revenue. The resultant changes to pre-consolidated revenue for the residential and commercial customer classes are

	Residential Revenue	Commercial Revenue
Sun City	**decrease 3%**	**increase 22%**
Sun City West	**decrease 21%**	**decrease 3%**
Agua Fria	**decrease 8%**	**increase 5%**
Anthem	**decrease 5%**	**increase 15%**
Tubac	**decrease 3%**	**decrease 10%**
Havasu	**decrease 8%**	**insignificant change**
Paradise Valley	**increase 32%**	**increase 29%**

The residential and commercial Consolidated Service Charge is $15.00 for 5/8 and 7/8 inch services and $25.50 for the 1-inch service. The consolidated rates are standard for all rate classes and categories. These water-conservation residential and commercial rates, by tier, are

Tier 1 **$0.83/1000 gallons** (this is the residential "lifeline" rate for first 4,000 gallons)
Tier 2 **$1.90/1000 gallons** (the first tier for commercial 1.5-inch and larger rate categories)
Tier 3 **$2.96/1000 gallons**
Tier 4 **$4.50/1000 gallons**
Tier 5 **$6.00/1000 gallons.**

For residential 5/8 and 3/4-inch and 1-inch rate categories, the tier breakpoints are at 4,000; 10,000, 20,000; 40,000 and 80,000 gallons. This is for about 90% of the Company's customers.

Higher Customer Charge and tier breakpoints are proposed for larger rate categories.

Other rate classes, such as private fire and company's exceptions, are essentially as proposed by the Company.

A three-year phase-in of all rate changes is proposed any change greater than 10%.

Consolidated Sewage Water rates, unchanged from the Company's filings, are proposed.

Consolidated Fees and Miscellaneous Charges are proposed.

Consolidated and reader-friendly Rules and Regulations are proposed.

The creation of a Water Demand Side Management (WDSM) program is proposed.

The creation of a Water Leakage program with financial incentives and disincentives for the Company is proposed.

All of the above were based on **fair and reasonable** considerations for both ratepayers and the Company.

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Section 1 – Background of the Issues

1.0 Background from Prior Rate Case.

Marshall Magruder was an intervenor in the first Arizona-American Water Company (AAWC or Company) rate case in Commission Dockets W/SW-01303A-08-0227 (hereafter The First Rate Case). The background and resume for Marshall Magruder is found in Appendix A of the Magruder Direct Testimony of 9 January 2009 in that case and is not repeated herein.

During this First Rate Case, Marshall Magruder proposed that conservation be a significant driver for water volumetric rates using a steep inverse slope Rate Structure, with up to ten tiers to make price break points "visible" and "obtainable" so that customers can see the savings by reducing water consumption. These multiple breakpoints are used so a reasonable person could conserve and attain a lower rate, that is respond to clear "price signals". He also stressed that with a low initial volumetric rate, special adjustments for low-income customers and those on fixed-incomes are not necessary. The Rate Structure should be designed so all customers can have an adequate water "life line" water at a lowest cost. This avoids the administrative costs to establish, monitor and advertise a "low-income" rate program, as this would be build into the Rate Structure used by all, e.g., the "life-line" first tier rate. He also proposed that all "fees and miscellaneous charges" be consolidated along with the Company's Rules and Regulations.

The resultant Commission Decision and Order No. 71470 (8 December 2009) ordered the Commission Staff and Company propose a rate consolidation testimony and schedules for all the AAWC water and sewage water districts in Arizona.

1.1 Issue 1 – Should Water District Rates Be Consolidated?

Q. Have you considered how the Rate Structure should be focused?

A. Yes. In the First Rate Case, the Magruder Testimonies used the Company's own witness and his prior testimonies evidence to support Rate Consolidation. Please see Appendix A for Exhibit MM-1, for an excerpt from that testimony.

1.1.1 Factors that Influence Rate Consolidation.

Q. What factors influence Rate Consolidation?

A. The factors that should be considered for Rate Consolidation, from the prior Magruder testimony (attached as **Exhibit MM-1**) in the Last Rate Case, which he fully supports, are as follows:

a. The product, water or sewage removal, of the Company's services is the same in all water and sewage water districts.[1] The focus on "product" safe delivery or removal should dominate decisions.

b. The services provided by the Company are the same in all districts.

c. The infrastructure requirements, in terms of engineering standards, are the same in all districts, thus directing that certain engineering and operations must be built into the system.

d. The quality of customer water in terms of water purity, public health and safety are the same for all districts.

e. The ability to meet customer water and sewage water demands is the same for all districts including adequate backup equipment, storage and tank maintenance.

f. The administrative requirements, in terms of meter reading, billing and call centers, are the same for all districts.

g. The operations and maintenance requirements are the same for all districts and consolidation smoothes out high swings in rates. Larger operations permit more specialists within the Company that no district could afford.

h. The equipment replacement actions use the same standards for replacing equipment that has reached the end of its effective life. This enhances cost sharing and savings due to economies of scale

i. The requirements for new customers, due to development and growth, now implemented by the Commission, require all new line extensions and equipment to be funded in advance by the new customers (or developer) and not by existing customers. However, the Company's capital cost for improvements such a new infrastructure needs, a replacement well, larger storage tank, smart meters, expanded call center, are all part of the total Company revenue requirement.

j. All districts have non-periodic (and sometimes emergency) major expenses. If passed directly just to the customers that will benefit will cause major increases in customers' rates; however, when there are many customers, these expenses can be most easily absorbed by larger numbers of customers without undue hardship. Many times these are unexpected.

k. The interconnection of two districts is not a critical factor as the water systems are not similar to the electrical grid with multiple paths, thus having an interconnection between two such areas has been shown to not have any significant impacts on rates, thus consolidation of non-contiguous districts would be a "nice to have, if possible," if they were contiguous but both the Company and Staff in the First Rate Case agreed that interconnectivity is NOT required for consolidation.

---

[1] The term "all districts" used herein means all the AAWC water and sewage water districts in Arizona.

l. Rate case expenses will be significantly less and Commission work decreased.

m. Standardization throughout the company makes it more efficient in terms of chemicals used, tests, personnel training, monitoring, and leak management techniques.

n. Rate stability and rate swings are greatly reduced by consolidation.

o. Rate "shock" events will be reduced after consolidation, maybe going into history.

p. Public and political consternation will be reduced in the future after rates are consolidated. This company presently has a terrible reputation by its customers; mostly because of the extremely high rate changes requested in its rate cases. Personally, I doubt if it could be worse, so concerns about "consternation" are understandable but in reality mute. Therefore, since consolidation will "smooth out" and "equalize" the high cost peaks and valleys ratepayers now perceive, there could be no better time than the present to consolidate from this view point.

q. The total revenue for the Company must remain revenue neutral before and after Rate Consolidation.

r. Rate relief timing, which needs rate case-validated company revenue numbers, is critical as all the elements are now in place for this to be accomplished during these proceedings and can be accomplished without additional delays in the Company's receiving a fair rate of return on its investment.

s. Public outreach and education is essential prior to implementation, as many do not understand the issues.

t. Number of breakpoints and tiers assists water conservation for all rate categories. This is discussed in detail in Issue 2 below).

u. Residential and small commercial water rates can be identical as many small businesses are similar to homes with respect to water consumption.

v. Phase in-plans for Rate Consolidation can use a Rate Structure design to short-term cost impacts for lowest using consumers while higher consuming users develop conservation methods to reduce cost. This factor permits Rate Consolidation and Rate Structure design to reduce the differences in rates in various districts using price signals to smooth out these differences.

1.1.2 Benefits of Rate Consolidation.

Q. What are the benefits Associated with Rate Consolidation?

A. Considering the above factors have lead to many benefits for the Company, Customers and Commission, including providing the same benefits as today and the same benefits for "all" customers in all water districts. As shown in Table 1 below, these benefits are summarized:

Table 1 – Customer, Company and Commission Benefits Associated with the Factors Considered for Rate Consolidation			
Benefit	**For the Customer**	**For the Company**	**For the Commission**
Product	Same for all	Same for all	Same for all
Services	Same for all	Same for all	Same for all
Infrastructure requirements	Same for all	Same for all	Same for all
Water quality	Same for all	Same for all	Same for all
Meet customer demands	Same for all	Same for all	Same for all
Administrative requirements	Same for all	Easier to administer	Same for all
Operations and Maintenance	Same for all	Easier to manage	Same for all
Equipment replacements	Same for all	Same for all	Same for all
New customer costs	No rate impacts	New customer pays	Same for all
Major non-periodic expenses	Same for all	Same for all	Same for all
Interconnections	Not required	Not required	Not necessary
Rate case expenses	Customers save	Company saves	Significantly less work
Standardization	Same for all	Fewer procedures	Easier to regulate
Rate Stability and Swings	Less future changes	Less future changes	Less future changes
Rate "shock"	Few, if any, future rate shock events	Permits gradualism instead of "shock"	Uses gradualism instead of "shock"
Public and Political Consternation	Already happened; to reduce after consolidation	After consolidation, future changes are smaller	Less complaints, after consolidation
Impact on Company revenue	No impact	No impact	No impact
Rate Relief Timing	Now is best time for all districts	Company's revenue needs can be met	Reduced future rate case efforts
Public Outreach and Education	Many customers have incorrect ideas about their rates	Company has held conducted and education campaign	Commission benefits by reducing number of water utility complaints
Number of Breakpoints and Tiers	Provides more Price Signals, reduces bills for conservation	Allows customers to "see" impacts of conservation	Should aid in conserving water
Residential and Small Commercial rates the same	Due to similarity in size and function, gives businesses ability to conserve with less usage	Fewer tariffs to implement	Less computations during audits
Phase In Plans	Multi-year plan to reduces impact	No impact if revenue neutral	Implements gradualism

1.1.3 Cost for Rate Consolidation.

Q. What are the costs Associated with Rate Consolidation?

A. Each of them above rate consolidation factors might have a "cost" to the customers, the Company and the Commission. As shown in Table 2 the "costs" are summarized.

Table 2 – Customer, Company and Commission Costs Associated with the Factors Considered Rate Consolidation			
Cost	**For the Customer**	**For the Company**	**For the Commission**
Product	Same for all	Same for all	Same for all
Services	Same for all	Same for all	Same for all
Infrastructure requirements	Same for all	Same for all	Same for all
Water quality	Same for all	Same for all, centralized labs	Same for all

Table 2 – Customer, Company and Commission Costs Associated with the Factors Considered Rate Consolidation			
Cost	**For the Customer**	**For the Company**	**For the Commission**
Meet customer demands	Same for all	Same for all	Same for all
Administrative requirements	Same for all	Less unique administration	Same for all
Operations and Maintenance	Same for all	More specialists	Same for all
Equipment replacements	Same for all	Larger order quantities	Same for all
New customer costs	No rate impacts	New customer pays	Same for all
Major non-periodic expenses	Same for all	Same for all	Same for all
Interconnections	Not required	Not required	Not necessary
Rate case expenses	Customers save	Company saves	Significantly less work
Standardization	Same for all	Fewer procedures	Easier to regulate
Rate Stability and Swings	Smaller rate swings and changes	Better financial management	Smaller future changes
Rate "shock"	Company can't have a worst reputation, thus future is better	Less a future concern with smoother, gradual changes	Smaller future rate changes
Public and Political Consternation	Getting through consolidation is when public complains	Excessive complaints until longer-term benefits are obvious	Present complaints are short-term due smoother future rates
Impact on Company revenue	No impact	No impact	No impact
Rate Relief Timing	Future costs to be higher	Reduces Company losses	Lower future rate case costs
Public Outreach and Public Outreach and Education	Needs time to learn about Customers need to learn the basis of Rate Structure	Cost of mailers and Should conduct educational meetings	No direct costs but better understanding reduces complains
Number of Breakpoints and Tiers	Increased costs for higher consumption	Allows customers to "see" impacts of conservation	Aids in implementing a Water DSM program
Residential and Small Commercial rates the same	May increase costs if high consumption	Charges greatest users the most	Eases computations during audits
Phase In Plans	Flash-cut increases immediate impact on ratepayers	No impact if revenue neutral	Reduces rate shock, uses gradualism

All of these issues are discussed in greater detail in Magruder Exhibits MM-1 and MM-2 in Attachment A below. These Magruder Exhibits are excerpts from his Reply Brief in the First Rate Case.

The sum of a monthly fixed customer service charge and a variable charge based on the quantity of water used determine the customer monthly water bill, before and company miscellaneous fees and charges. These two elements of customer rates are discussed in 1.1.4 and 1.1.5 below. The various fees and taxes also leaved on this bill and other non-company fees are not a part of this proceeding.

1.1.4 Service Charge Issues.

What are the Service Charge issues?

In the past fifteen years, the Company has acquired the districts involved in this matter. Many were from the Citizens Utilities Company that sold these assets when it changed focus to a communications-only company. The resultant condition of these districts varied, some needed more infrastructure work than others, the ages of the districts varies, however, the benefits of consolidation need further discussion than summarized above.

The Cost of Service (COS) is one element determined in a rate case and is reflected in as a fixed monthly customer Service Charge. The company's target for 5/8th inch service charge is $14.86 in its Version 2.0 software program; however, $16.97 was proposed in its Rebuttal. The primary purpose of the Service Charge is to fund the infrastructure, administration and administrative expenses to always deliver safe water to its customs. In general, these are fixed costs and usually described as the "meter" fee just to be able to receive water.

1.1.5 Water Volumetric Rate Issues.

What are the Volumetric Rate issues?

The second component for rates is a volumetric water charge based on the quantity of water used. This is the ratepayer's "cost of water" or COW and varies based on how much water the customer consumes in a month. The customer's meter reads the volume of water that passes by the meter since the prior reading, and this "volume" of water (with some standard and approved corrective factors used to normalize the readings) is then multiplied by the designated volumetric rate (in dollars per 1,000 cubic feet of water) for the monthly COW charged to the customer. The development of a Rate Structure, see Issue 3 below, is how the COW varies by *customer class* (such as residential, business/commercial, and others), *customer category* within the class based on size of water pipe connected to the meter, and total volume of water consumed in the monthly reading.

1.1.6 Computation of a Customer's Water Bill.

Q. How is the Total Customer cost for water computed?

A. Simply, for a specific customer class and customer category, the Customer Charge is then added to the Cost of Water to determine a customer's Water Bill. The Cost of Water uses corrected volume-consumed times the structure of rates for the total volume consumed.

1.2 Issue 2– Should Rate Structures Be Conservation Oriented?

Q. Have you considered how the Rate Structure should be focused?

A. Yes. In the First Rate Case, the Magruder used the Company's own witness Mr. Hebert and his prior testimonies evidence to support Rate Structure. Please see Appendix A for **Exhibit MM-2**, for an excerpt from that testimony.

1.2.1 Factors that Influence Rate Structure.

Q. What factors influence the Design of the Rate Structure?

A. The factors that should be considered for the design of the Rate Structure are similar to those for Rate Consolidation; however, the Rate Structure needs careful consideration, as this is how changes in rates directly impact the customers. It is important to note that the Total Revenue not change when proposing any Rate Structure. The Total Revenue raised from the customers must equal the Commission-determined Total Revenue allowed from a rate case.

In summary, many different Rate Structures can be designed to equal the desired Total Revenue requirements, as this structure determines which customer classes, customer categories and volumetric costs to achieve the total revenue allowed.

The cost impact on each customer needs to be the primary consideration when design the Rate Structure. In order to achieve the Total Revenue, the following factors should be considered for Rate Structures that differ from those involved in Rate Consolidation in 1.1 above.

a. The balance between revenue from the residential, business and other unique or specialized customer *classes* such as for private fire companies, irrigation, and other purposes.

b. The balance between revenue raised from each *customer category* (usually the size of the pipe) within a customer class is very dependent on the number of customers in that category and this will have significant impacts on the total revenue for a customer class.

c. The revenue versus costs for miscellaneous charges and fees should be revenue neutral as discussed in more detail in 1.5 in Issue 5 below. These should not influence the design of Rate Structure.

d. The revenue versus capital costs for new residential developments or new customers, including line extensions, should also be revenue neutral, thus these costs should not influence Rate Structure design but may impact the total revenue requirements.

e. Rate Structure design should "gradually" [e.g., using gradualism] introduce rate changes to customers and significant rate changes, called "rate shock" should be avoided if at all possible. The long-term impacts from Rate Consolidation will reduce future rate shock; however, in order to initially achieve Rate Consolidation, due to the major differences in the existing rates, carefully designing the Rate Structure can be used to reduce the one-time impact of Rate Consolidation.

f. Public opinion needs to be considered when changing the Rate Structure.

g. Low-income customers and those on "fixed" income need to be considered when designing the residential Rate Structure. If "life line", or very low rates are used for the first several thousand gallons consumed, then these two customers types should be able to have low rates within the designed Rate Structure and not having a special, low or "fixed" income rate category or an adjustment.

h. The total revenue for the Company must remain revenue neutral in the Rate Structure design.

i. Number of breakpoints and tiers are designed to assist in water conservation for both residential and commercial rate classes. This will be discussed in greater depth in Section 3 below.

j. Residential and small commercial rate classes can be designed to common, as many small businesses are similar to homes with respect to water consumption. Many small businesses are "Mom and Pop" stores, and the same conservation processes can apply to both.

k. Phase in-plans for Rate Consolidation can use a Rate Structure design to short-term cost impacts for lowest using consumers while higher consuming users develop conservation methods to reduce cost.

l. For those who live in communities under local administration, such as by a homeowner's association (HOA), the water conservation "price signals" from the Rate Structure will impact all in the community. Since all in the community usually are customers of the local water company, then rate changes that influence community decisions, such as irrigation and "green lawn" requirements may have to change if the price signal is beyond the affordability capabilities of the HOA.

m. For businesses that have high water consumption volumes, such as a restaurant, commercial swimming pool, private fire district, or golf course, either a unique rate category needs to be developed for that group of customer. The resultant unique rate category or special rate must be integrated into the overall Rate Structure when determining the Total Revenue for the Company.

1.2.2 The Influence of Water Conservation on Design of the Rate Structure.

Q. Why is Water Conservation as design factor for Rate Structures?

A. Arizona, like the rest of the Western United States, is water poor. At the present overdraft of the state's aquifers and the state's position in the Colorado River Compact, the water resources in our state cannot sustain consumption at the present rate. Water conservation should be a driver in designing the Rate Structure by having the lowest "rates" for those who consume the least volume of water and much higher rates for those who consume the greatest volume of water. This will send a clear "price signal" to the highest water consumers and lowering their monthly water will require a change in their water consumption.

The study in the Company's Rebuttal of 7 April 2010, "Arizona-American Water Company's Anthem Water District: The Effect of Tiered Water Rates on Water Consumption"[2] shows that price signals in the Tier Design produced a 5% lower consumption in this study.

1.2.3 Influence of Low and Fixed-Income Customers on the Design of the Rate Structure.

Q. Can a Rate Structure design account low-income and fixed-income customers?

A. Most definitely, yes.

In the Last Rate Case, a Company's witness stated that a person only needs a minimum of about 300 gallons a month to live, and in my opinion, with a minimal quality of life. For all residential rate categories, increasing this by at least and order of magnitude so that the first 4,000 gallons consumed per month has a very low cost to all customers.

In fact, due to this low cost, all other customers in each rate category will be both benefiting and subsidizing these first 4,000 gallons.

As proposed in Section 2 below, this will be a "lifeline rate." This lifeline rate is available in all residential rates categories.

1.2.4 The Benefits from a Responsive Design of the Rate Structure.

Q. What are the benefits associated with the Design of Rate Structure?

A. Considering the above factors and considerations, have lead to many benefits for the Company, Customers and Commission, including providing the same benefits as today and the same benefits for rate classes and rate categories of customers. Table 3 below summarizes the benefits by using the above factors and considerations:

Table 3 – Customer, Company and Commission Benefits Associated with the Factors and Considerations for the Rate Structure Design

Benefit	For the Customer	For the Company	For the Commission
Balance of revenue from Customer Classes	Used to shift costs between classes	No direct impact	Fair and Reasonable considerations
Balance of revenue within a Rate Category	Used to shift costs within a Rate Category, used for "lifeline rates"	No direct impact	Fair and Reasonable considerations
Revenue from Miscellaneous charges and fees	Revenue neutral	No direct impact	Fair and Reasonable considerations
New Development Capital costs	Should be born by the developer not existing customers	Negotiation costs with developers	Should review to determine if prudent
Gradualism	Reduces rate shock	Fewer complaints	Preferred approach

[2] By Miles H. Kinger, Rate Analyst, AAWC, dated 8 March 2010.

Table 3 – Customer, Company and Commission Benefits Associated with the Factors and Considerations for the Rate Structure Design			
Benefit	**For the Customer**	**For the Company**	**For the Commission**
Public Opinion	Provides feedback to the company and Commission	Used to allocate revenue to classes and categories	Fair and Reasonable considerations
Low and Fixed-income Rates	Very low "Life Line" rates for first residential rate category.	Fair and Reasonable design	Fair and Reasonable considerations
Total Revenue	Total customer costs to equal total revenue	Requires Total Revenue from customers	Fair and Reasonable considerations
Breakpoints and tiers	Designed to allow customers to achieve lower rates through conservation which needs many tiers AND noticeable changes between rates for each rate tier	Used to allocate revenue within a rate category	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Used to shift costs between classes	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Phase-in Rate Changes	Spreads out cost over several years, reduced rate shock	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Home Owners Association Requirements	May cause excessive water use	No direct impact	Fair and Reasonable considerations
Unique Rate Classes	To benefit a unique customer requirement	Permits flexibility in decision making	Fair and Reasonable considerations

1.2.5 Cost Impacts to Consider for the Design of the Rate Structure.

Q. What are the costs Associated with Rate Structure Design?

A. Each of them above rate consolidation factors might have a "cost" to the customers, the Company and the Commission. As shown in Table 4 the "costs" are summarized.

Table 4 – Customer, Company and Commission Costs Associated with the Factors and Considerations for the Rate Structure Design			
Cost	**For the Customer**	**For the Company**	**For the Commission**
Balance of revenue from Customer Classes	Some to have higher or lower rates	No direct impact	Fair and Reasonable considerations
Balance of revenue within a Rate Category	Can provide "lifeline" rate, some with higher/lower rates	No direct impact	Fair and Reasonable considerations
Revenue from Miscellaneous charges and fees	Standard charges applied to all customers	Easier to administer	Fair and Reasonable considerations
New Development Capital costs	Present customers don't pay costs for future customers	Negotiations required for contracts	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Some to have higher or lower rates	No direct impact	Fair and Reasonable considerations
Rate Structure promotes Gradualism	Some to have higher or lower rates	No direct impact	Fair and Reasonable considerations
Public Opinion	Higher costs upset customers	Complaints need to be	Commission must show

Table 4 – Customer, Company and Commission Costs Associated with the Factors and Considerations for the Rate Structure Design			
Cost	**For the Customer**	**For the Company**	**For the Commission**
		managed	it is Fair and Reasonable considerations
Low and Fixed-income Rates	Same for all residential customers, but higher usage customers will pay	No direct impact	Fair and Reasonable considerations
Total Revenue	Total customer costs to equal total revenue	Requires Total Revenue from customers	Fair and Reasonable considerations
Breakpoints and tiers	Decreases costs for lowest consumption and increased costs for highest consumption	Reduced costs with standard tiers	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Some customer classes with higher and others with lower rates	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Phase-in Rate Changes	Some whose rates are being reduced have to wait	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Home Owners Association Requirements	Can penalize homeowners	No direct impact	Fair and Reasonable considerations
Unique Rate Classes	Unique customers must pay fair and reasonable rates	Negotiation expenses	Fair and Reasonable considerations
Total Revenue	Total customer costs to equal total revenue	Requires Total Revenue from customers	Fair and Reasonable considerations
Breakpoints and tiers	Decreases costs for lowest consumption and increased costs for highest consumption	Reduced costs with standard tiers	Fair and Reasonable considerations
Balance of revenue from Customer Classes	Some customer classes with higher and others with lower rates	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Phase-in Rate Changes	Some whose rates are being reduced have to wait	No direct impact as long as Total Revenue is not changed	Fair and Reasonable considerations
Home Owners Association Requirements	Can penalize homeowners	No direct impact	Fair and Reasonable considerations
Unique Rate Classes	Unique customers must pay fair and reasonable rates	Negotiation expenses	Fair and Reasonable considerations

1.2.6 Tier Design Issues

Q. What are design issues involving the selection of Tiers in the Rate Structure?

A. Tier design is the most critical element when designing the Rate Structures for residential and commercial rate categories. The end result for a rate category needs to include the

a. Number of tiers,

b. Tier width in terms of thousands of gallons (kgals), and

c. Fair and Reasonable rate set for the tier.

The number of tiers needs to look at the number of customers at each kgal of consumption in the rate category. Due to the Poisson probability distribution[3] found with customer consumption patterns, the customer median consumption is lower than that for the mean (average consumption). This leads to requiring at least one or more small tier widths before the median customer, and then increasing tier width when beyond the mean customer consumption.

By increasing the number of tiers, a customer should be able to see how much consumption needs to be reduced to lower the volumetric charge. In this party's opinion, having up to ten tiers available could greatly assist in improving this visibility.

An important concern is providing in the First Residential Tier a very low rate and adequate tier width so that adequate water is available at a low cost for low and fixed-income customers. If this same First Residential Tier is used for all residential customer categories, then the higher tiers will have to have a higher rate to compensate if the First Tier very low rate so the Company's Total Revenue is achieved in design of the Rate Structure.

1.2.7 Sewage Water Rate Structure Issues

Q. How do you see the design for Sewage Water Rate Structure?

A. This is another complex issue. I concur with the Company's comments concerning sewage water Rate Structure and adopting that proposed by the Company.

1.3 Issue 3 – Should Sewage Water District Rates Be Consolidated?

Q. Should Sewage Water District Rates Be Consolidated?

A. Based on the factors involved in rate consolidation, the benefits and costs, from 1.1 above, this appears to be obviously a good solution. Unfortunately, this Party has minimal experience in additional factors that influence Sewage Water issues; Magruder will adopt the Sewage Water Rates in the Company's Rebuttal.

1.4 Issue 4 – Should All Fees and Miscellaneous Charges Be Consolidated?

Q. How are these fees and miscellaneous charges now scheduled?

A. A separate schedule for these fees and charges exists for each water and sewage water district. The are variations in the fee or charge for the same event which appears to have remained for many years, sometimes a fee or charge from a prior owner is the cause of this difference.

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[3] The Magruder Testimony in the Last Rate Case erroneously referred to a X^2 (chi) squared distribution; however, after discussions with a small water utility manager (also a PhD in astrophysis), I was convinced that a Poison Probability Distribution function was a better fit.

This issue was presented in the Last Rate Case and deferred to this consolidation case and is discussed in greater detail in **Exhibit MM-1**, in 4.2.4, "Consolidation of Miscellaneous Charges and Fees."

Q. Is there any justification for not consolidating the various fees and miscellaneous charges?

A. No, therefore these fees and charges should be consolidated into one schedule for water and sewage water.

1.5 Issue 5 – Should the Rules and Regulations Be Consolidated?

Q. How are the Company's Rules and Regulations organized?

A. Each water and sewage water district has its own Rules and Regulations (R&Rs), many not appearing to be similar to others. A Consolidated R&Rs facilitates both customer understanding and Company operations by reducing the volume of redundant and conflicting rules and regulations. A generic set of R&Rs should be used throughout all districts and a district specific supplement to cove the unique differences.

The consolidation of R&Rs was discussed in the Last Rate Case and deferred to the present case.

Q. Should the R&Rs be consolidated?

A. In my opinion, yes to improve efficiency and quality performance by the Company and easier understanding by its customers.

1.6 Issue 6 – Should a Water Demand Side Management (WDSM) Program Be Established?

Q. What is a Water Demand Side Management program?

A. Using the analogies from both the electricity and natural gas utilities, these would be programs whereby customer demands for water are permanently reduced by a change in equipment or procedures. Such a WDSM program would compensate the Company for its part using the same process now being used by the Commission for these other two utilities.

Q. What are some examples of a Water Demand Side Management program?

A. Frankly, I made up this kind of program; however, it is a realistic way to reduce water consumption. Here are a few examples:

a. Providing a pool cover mechanism to reduce evaporation and water loss from a pool.

b. Providing incentives for purchasing a dish or clothes washer that used significantly less than the model now being used by a customer.

c. Providing incentives for a car wash facility to recycle water.

d. Replacing the showerheads in a school's shower room with low-flow versions.

e. Providing low-water trees for customers that replace trees that consume lots of water.

f. Working with gardeners to set drip irrigation timers to optimize water usage.

Each of the WDSM programs would need to be submitted to the Commission for approval prior to implementation. Further, upon approval, a small "adjustor" would be added to customer's bills to fund these programs.

Obviously, any WDSM program will lose expected revenue for the Company. This avoided cost will need to be factored into the Company's compensation based on measured performance results for implementing such a program.

1.7 Issue 7 – Should Water Loss Be An Incentive or Disincentive?

Q. Why is water loss a concern?

A. In general, the Commission seems to be of the opinion that when the total water loss by a water utility is considered excessive when exceeding 10%. This results in a goal not to exceed a 10% wastage factor. It is this party's opinion that NO water losses are beneficial to the Company or the customers. Just like transmission (energy) losses in the electricity industry, water losses are also charged to the customers with higher costs that include a product not used but wasted in the delivery process.

Q. Are there any programs to incentivize lowering Water Loss?

A. To the best of the knowledge of this party, none are known to exist at this Commission and probably very few are elsewhere.

At present, the implementation of "smart meters" is providing the Company the capacity to actually understand the actual real-time customer demands and the ability to monitor water flow in ways not dreamed of a decade ago. Using this technology and other innovative processes, the Company should be able to monitor its system much closer, in particular, to determine if there are water leaks in its mains or other parts of its system. This could be the basis for creating a Water Loss Management program.

Q. Should a Water Loss Management Program have disincentives?

A. Yes, if a target water loss Goal is set with the Commission with agreement by the Company, and this goal is not obtained, then the agreement's disincentives should be exercised.

Section 2 – Proposals Concerning the Issues in this Matter

2.0 Resolution of the Issues

Q. How were Rates Consolidated in this proposal?

A. First, the total revenue water districts were consolidated and then reallocated to customer classes as shown for Issue No. 1. Based on these revenue reallocations, changes to Service Charges, and rate tiers designed into the Rate Structure, then rates are determined for each customer category for Issue No. 2.

Second, the sewage water consolidated rates proposed by the Company are adopted for Issue No. 3.

Third, revenue-neutral Fees and Miscellaneous charges are consolidated in Issue No. 4.

Fourth, the Company's Rules and Regulations are consolidated to be user-friendly for Issue No. 5.

Fifth, the Company is requested to propose a Water Demand Side Management (WSDM) program as a way to provide incentives for customers to reduce water demands in Issue No. 6.

Sixth, the Company is requested to propose a program with financial incentives and disincentives to reduce water losses for each water district for Issue No. 7.

2.1 Issue No. 1 – Proposed Water District Rate Consolidation

Q. How did you consolidate the water district revenues?

A. Based on the First Rate Case and use of the Company's Water Model, version 3, it as possible to use the factors and considerations for Rate Consolidation in the design of Rate Structures for the water districts that reduce the total rate changes impact.

It was decided to consolidate the total revenue requirements for all water districts based on the Company's evidence and experiences above and also as summarized in **Exhibit MM-1**.

Second, due to the significant differences in Rate Structures for the water districts, consolidation is impossible without a major redesigning the Rate Structure.

Based on this decision, then a resultant Rate Structure would be necessary that was both fair and reasonable. See 2.2 for the resultant steps to design a new Rate Structure for the consolidated water districts.

Because this is a "one-time" adjustment to consolidate rates, the uses of changes in the Rate Structure are used to reduce "rate shock" impacts.

2.1.1 Proposed Total Revenue for Consolidated Rates by Customer Class.

Q. What changes are made to the revenue allocations for the residential and commercial customer classes?

A. From the customer's view, the design of the Rate Structure has the most impact, because the overall Total Revenue has been determined to be "fair and reasonable" by the Commission. How this impact each customer class and rate category involves considerations and factors previously presented above in Table 1 to Table 4.

First, due to the potential high degree of rate shock, especially for the vast majority of customers, that is those in the residential rate class, it was determined that a reduction in revenue from the residential class could provide enough elasticity to attempt to design fair and reasonable rates.

Second, after many model iterations, by decreasing the overall revenue for the residential rate class about $1.5 million or 3% and increasing the overall revenue for the commercial rate class by about the same $1.5 million or 13%, then it was possible to minimize the vary large swings in rate changes for each water district. As shown in Table 5 below, from the Schedule H-1 we see in the below summary of consolidated water rates the proposed revenue changes. The result of the proposed Rate Structure was $514 less than the Target Total Revenue for the Company.

Table 5 – Summary of Consolidated Water Rates

Rate Class	Revenue from Consolidated Rates	Target Revenue	Difference
Residential (a)	**55,895,800**	**57,468,802**	**(1,573,002)**
Commercial	**14,362,261**	**12,766,423**	**1,595,838**
OPA (b)	**290,552**	**205,193**	**85,359**
Sale For Resale (c)	**297,189**	**295,157**	**2,031**
Misc- Non-Potable	**2,053,233**	**2,341,241**	**(288,009)**
Private Fire	**632,214**	**454,946**	**177,268**
Total	**73,531,246**	**73,531,762**	**(514)**

(a) Includes Multi-family - rates are not consolidated.
(b) OPA in Aqua Fria (State Prison) and in Mohave consolidated to Commercial rates.
(c) Includes Peoria Public Interruptible in Sun City, PI Surprise and Water Contract in Agua Fria

Third, this analysis used the same assumptions found in notes (a) to (c) to the above Table and other changes were not made in the other rate classes other than raising the fire hydrant fee from $10 to $12 to conform to higher rates found in other companies' tariffs. The other revenue changes for these rate classes were previously in the model and carried forward in this analysis.

Fourth, the "Total Revenue" results are shown in proposed Schedule H-1 that has the present, non-consolidated, and consolidated revenue impacts from the design used for the new Rate Structure.

2.1.2 Proposed Consolidated Revenue Allocations to Water Districts.

Q. What were the results of allocating the Total Revenue to Water Districts?

A. These revenues are changed from the present to the proposed revenues after many iterations of the model, for the consolidated revenue for the residential and commercial customer classes is shown in Table 6 below:

Table 6 – Consolidated Revenue Changes from Present Revenue for Residential and Commercial Rate Classes by Water District

Water District	*Residential Revenue*	*Commercial Revenue*
Sun City	**Decrease 3%**	**Increase 22%**
Sun City West	**Decrease 21%**	**Decrease 3%**
Agua Fria	**Decrease 8%**	**Increase 5%**
Anthem	**Decrease 5%**	**Increase 15%**
Tubac	**Decrease 3%**	**Decrease 10%**
Havasu	**Decrease 8%**	**Insignificant**
Paradise Valley	**Increase 32%**	**Increase 29%**

2.1.3 Proposed Consolidated Rates – Allocated Total Revenue Requirements.

Q. What does Schedule H-1 Report?

A. This schedule has several tables in Table 7 that follows. First, the present revenue for each rate class is and water district shown a second table shows the Revenue Proposed Rates – Non-consolidated revenue requirements, again by rate class and water district. The third table shows the Revenue Proposed Rates – Consolidated by rate class and water district. A fourth table shows the Increase or Decrease for each rate class and water district in terms of dollars and percent change.

The model refers to this as Schedule H-1. The proposed Schedule H-1 for revenue is with $514 of the present revenue for each rate class is in Table 7 below.

In addition to the most common Residential and Commercial rate classes, the others are ones the Company also has proposed as unique rate classes. This party concurs with that assignment.

Table 7

ARIZONA AMERICAN WATER COMPANY **Schedule H-1**
CONSOLIDATED RATES - PRESENT AND PROPOSED REVENUE

Rate Class	Revenue - Present Rates								
	Sun City	SCW	Agua Fria	Anthem	Tubac	Mohave	Havasu	PV	Total
Residential*	7,456,182	8,007,995	16,698,300	5,279,103	429,394	3,928,553	1,192,870	7,108,793	50,101,189
Commercial	1,439,034	1,182,277	4,532,525	967,874	177,484	951,785	190,594	1,954,299	11,395,872
OPA			6,832			176,554		21,806	205,193
Sale For Resale			117,062	71,929				33,843	222,917
Misc- Non Potable			427,339	834,977					1,450,798
Private Fire	46,450	67,996	120,726	86,395		26,119		7,648	355,335
Total	9,130,231	9,258,268	21,902,785	7,240,279	606,878	5,083,012	1,383,464	9,126,389	63,731,304

	Revenue Proposed Rates - Non-Consolidated								
	Sun City	SCW	Agua Fria	Anthem	Tubac	Mohave	Havasu	PV	Total
Residential*	9,524,350	8,007,995	16,698,300	10,578,548	429,394	3,928,553	1,192,870	7,108,793	57,468,802
Commercial	1,837,976	1,182,277	4,532,525	1,939,483	177,484	951,785	190,594	1,954,299	12,766,423
OPA			6,832		-	176,554	-	21,806	205,193
Sale For Resale			117,062	144,146	-	-	-	33,843	295,157
Misc- Non-Potable			427,339	1,673,165	-	-	-	-	2,341,241
Private Fire	59,333	67,996	120,726	173,123	-	26,119	-	7,648	454,946
Total	11,662,502	9,258,268	21,902,785	14,508,466	606,878	5,083,012	1,383,464	9,126,389	73,531,762

	Revenue Proposed Rates - Consolidated - Step 1								
	Sun City	SCW	Agua Fria	Anthem	Tubac	Mohave	Havasu	PV	Total
Residential (a)	9,143,065	6,340,549	15,400,953	10,100,266	416,800	3,998,932	1,101,098	9,394,138	55,895,800
Commercial	2,240,452	1,146,007	4,757,929	2,235,148	160,609	1,117,915	185,614	2,518,587	14,362,261
OPA (b)			11,071			238,753		40,728	290,552
Sale For Resale (c)			117,062	144,146				35,874	297,189
Misc- Non-Potable			391,623	1,189,440					2,053,233
Private Fire	114,452	72,950	223,792	72,150		91,544		57,326	632,214
Total	11,970,244	7,559,506	20,902,430	13,741,150	577,408	5,447,144	1,286,712	12,046,653	73,531,248
	3%	-18%	-5%	-5%	-5%	7%	-7%	32%	
Residential Increase/(Decrease)									
$ Amount	(381,285)	(1,667,445)	(1,297,347)	(478,282)	(12,594)	70,379	(91,772)	2,285,345	(1,573,002)
Percentage	-4%	-21%	-8%	-5%	-3%	2%	-8%	32%	-3%
Commercial Increase/(Decrease)									
$ Amount	402,476	(36,270)	225,404	295,665	(16,875)	166,130	(4,980)	564,288	1,595,838
Percentage	22%	-3%	5%	15%	-10%	17%	-3%	29%	13%
OPA Increase/(Decrease)									
$ Amount	-	-	4,239	-	-	62,199	-	18,922	85,359
Percentage	0%	0%	62%	0%	0%	35%	0%	87%	42%
SFR Increase/(Decrease)									
$ Amount	-	-	-	-	-	-	-	2,031	2,031
Percentage	0%	0%	0%	0%	0%	0%	0%	6%	1%
Misc - Non-Potable Increase/(Decrease)									
$ Amount	231,433	-	(35,716)	(483,725)	-	-	-	-	(288,009)
Percentage	96%	0%	-8%	-29%	0%	0%	0%	0%	-12%
Private Fire Increase/(Decrease)									
$ Amount	55,119	4,954	103,066	(100,973)	-	65,425	-	49,678	177,268
Percentage	93%	7%	85%	-58%	0%	250%	0%	650%	39%

For (a), (b), and (c), see Table 5.

2.2 Issue No. 2 – Proposed Conservation-Oriented Water Rate Structures.

The design of the Rate Structure required much iteration with the Company's model.

2.2.1 Proposed Rate Structure meets the Total Revenue Requirements.

Q. How were the Rate Structures for the Customer Rate Categories determined?

A. First, consolidated rates must have the same total revenue as the present rates. This is was determined in 2.1 above; however, it was the design of the Rate Structure that caused changes in the proposed Revenue requirements.

Second, the resultant Rate Structure design used the factors and considerations in 1.2 and Tables 1 to 4 above.

2.2.2 Proposed Low-income and Fixed-income "Lifeline" Rates.

Q. How were the Lifeline Rates determined?

A. During model iterations, the First Tier rate was made as low as possible to meet the total revenue requirements.

The Lifeline rate is $0.83 per 1,000 gallons for the first 4,000 gallons, or $3.32 plus the proposed Service Charge ($15.00) for a total of $18.32, if all 4,000 gallons of water are consumed. This party, with a large home, two adults and two dogs, averages about 5,000-6,000 gallons per month with some months being as low as 3,000 gallons at a cost of $16.49. In my opinion, this a both fair and reasonable charge for water in Arizona for low and fixed-income residential rates.

2.2.3 Proposed Service Charges.

Q. How were the Service Charges determined?

A. Service Charges were determined, in general, similar to those in the model with the 1-inch rate Service Charge lowered considerably. This was done to discourage customers from changing to lower flow meters based only on the Service Charge, especially for safety reasons due to the required water flow requirements for home fire sprinkler systems. As will be shown under the proposed "fees" in 2.4 below, a "change meter fee" is being proposed to be $150. In the next rate case, the 1-inch service charge should be increased more than others. Table 8 below shows the Proposed Service Charges for each rate category.

The ratio of the size of each rate category was considered but not used in its finest detail because at present customers are requesting to change to lower (and possibly unsafe) rate categories just to save on the Service Charge.

Table 8 – Proposed Consolidated Service Charges for Residential and Commercial Rate Classes by Rate Category.

Rate Category	*Residential Service Charge*	*Commercial Service Charge*
5/8 – 3/4 inch	$15.00	$15.00
1 inch	$25.50	$25.50
1 1/2 inch	$75.00	$75.00
2 inch	$100.00	$100.00
3 inch	$225.00	$225.00
4 inch	$375.00	$375.00
6 inch	$750.00	$750.00

2.2.4 Proposed Consolidated Rates by Tier.

Q. What determined the Consolidated Rates?

A. Since this v3 model is limited to only five tiers, and increasing the ratio between the First (Lifeline) Tier in some rate categories; the resultant consolidated rates are in Table 9. Only four Tiers are used for Commercial Rates.

Table 9 – Proposed Consolidated Rates by Tiers
(in $ per 1000 gallons)

Tier	*Residential Rate*	*Commercial Rate*
1	$ 0.83	Not applicable
2	$ 1.90	$ 1.90
3	$ 2.96	$ 2.96
4	$ 4.50	$ 4.50
5	$ 6.00	$ 6.00

If additional tiers were available in the model, the consolidated rate differences between tiers would be less.

2.2.5 Proposed Tiers for Residential and Commercial Rate Categories.

Q. What determined the Tiers?

A. The Tiers were adjusted in the model to make visible breakpoints that a customer could see and therefore make the necessary changes in water usage to lower his monthly billing. These are shown in Table 10 from the model, the Assumptions. Table 10 provides the values used in making this analysis; however, the spacing and "tab colors" were deleted.

Table 10 – Assumptions for Proposed Residential, Commercial, OPA, Turf and Blocks (next 2 pages).

Residential Rates and Blocks				Commercial, OPA, Turf Rates and Blocks			
5/8" - 3/4"				**5/8" - 3/4"**			
Tab color				Tab color			
Customer Charge		$	15.00	Customer Charge		$	15.00
First	4,000	$	0.8300	First		$	0.8300
Next	6,000	$	1.9000	Next or First	10,000		1.9000
Next	10,000	$	2.9600	Next	10,000		2.9600
Next	20,000	$	4.5000	Next	20,000		4.5000
Over	40,000	$	6.0000	Over	50,000		6.0000
1"				**1"**			
Tab Color				Tab Color			
Customer Charge		$	25.50	Customer Charge		$	25.50
First	4,000	$	0.8300	First		$	0.8300
Next	6,000	$	1.9000	Next or First	10,000		1.9000
Next	10,000	$	2.9600	Next	15,000		2.9600
Next	20,000	$	4.5000	Next	25,000		4.5000
Over	40,000	$	6.0000	Over	50,000		6.0000
1 1/2"				**1 1/2"**			
Tab Color				Tab Color			
Customer Charge		$	75.00	Customer Charge		$	75.00
First	25,000	$	0.8300	First		$	0.8300
Next	75,000	$	1.9000	Next or First	100,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	100,000	$	4.5000	Next	100,000		4.5000
Over	100,000	$	6.0000	Over	100,000		6.0000
2"				**2"**			
Tab Color				Tab Color			
Customer Charge		$	100.00	Customer Charge		$	100.00
First	25,000	$	0.8300	First		$	0.8300
Next	75,000	$	1.9000	Next or First	100,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	100,000	$	4.5000	Next	100,000		4.5000
Over	200,000	$	6.0000	Over	200,000		6.0000
3"				**3"**			
Tab Color				Tab Color			
Customer Charge		$	225.00	Customer Charge		$	225.00
First	50,000	$	0.8300	First		$	0.8300
Next	50,000	$	1.9000	Next or First	100,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	100,000	$	4.5000	Next	100,000		4.5000
Over	200,000	$	6.0000	Over	200,000		6.0000

Table 10 (Continued)

4"			4"		
Tab Color			Tab Color		
Customer Charge		$375.00	Customer Charge		$375.00
First	100,000	$0.8300	First		$0.8300
Next	100,000	$1.9000	Next or First	200,000	1.9000
Next	100,000	$2.9600	Next	100,000	2.9600
Next	200,000	$4.5000	Next	200,000	4.5000
Over	300,000	$6.0000	Over	300,000	6.0000
6"			**6"**		
Tab Color			Tab Color		
Customer Charge		$750.00	Customer Charge		$750.00
First	100,000	$0.8300	First		$0.8300
Next	100,000	$1.9000	Next or First	200,000	1.9000
Next	100,000	$2.9600	Next	100,000	2.9600
Next	200,000	$4.5000	Next	200,000	4.5000
Over	400,000	$6.0000	Over	400,000	6.0000

2.2.6 Other Proposed Consolidated Rates.

Q. What other rates are being consolidated?

A. In addition to the Residential and Commercial rate categories, others were included or not included in Table 10 above. Included in the Consolidated Rate Schedule for Commercial customers are the present OPA and Turf Rates.

2.2.7 Proposed Non-Potable Water Rates.

Q. What are the charges proposed for non-potable water?

A. The Non-Potable Water Rate only has one charge, a volumetric consumption charge of $2.50/1000 gallons, as proposed by the Company, which this party also concurs. No service charge is proposed. The Company may propose a different rate structure for non-potable water in the future.

2.2.8 Proposed Private Fire and Hydrant Rates.

Q. Do you agree with the Company's proposal for Private Fire and Hydrant Rates?

A. Yes. These are given in Table 11 below. Only a Service Charge is used.

Table 11
Private Fire and Hydrant Rates

Service	Customer Charge
2 inch	$10.00
3 inch	$22.50
4 inch	$40.00
6 inch	$90.00
8 inch	$160.00
10 inch	$250.00
12 inch	$360.00
Hydrants	$12.00

2.2.9 Rates Classes that are Not Proposed to be consolidated.

Q. What Rates Classes are not being consolidated?

A. Some present rate classes were not consolidated in the Model and were also recommended by the Company for not being consolidated during this rate case. The Company has proposed that the following water rate classes not be consolidated:

C2M3 – Arizona Water Contract
C5M1 – Agua Fria – OWU PI Surprise
A5M1 – Sun City Public Interruptible - Peoria
E7M2 – Anthem Wholesale (Phoenix) OWU
Mohave and Havasu Apartment Classes

And the following sewage water rate classes were also not consolidated:

A2MSP – Sun City Sewer Paradise Park I/U
E5M2 – Anthem Wholesale (Phoenix) OWU
P7A1 – Mohave Sewer Effluent Sales

This party agrees with the non-consolidation rationale in Heppenstall Rebuttal.

2.3 Issue No. 3 – Proposed Sewage Water District Rate Consolidation

Q. How did you consolidate the sewage water district revenues?

A. For the same reasons and rationale used in consolidating the water districts, it was decided to consolidate all the sewage water districts.

Second, due to the significant differences in Rate Structures for the sewage water districts, consolidation is impossible without also redesigning the Rate Structure.

Based on this decision, the Consolidated Rates and Rate Structure for all sewage water districts proposed by the Company appears to have met the reasonable and fairness criteria and should be approved.

2.4 Issue No. 4 – Proposed Consolidated Fees and Miscellaneous Charges

Q. Has the Company proposed consolidation of its Fees and Miscellaneous Charges?

A. No, as the Last Rate Case deferred this issue to the ongoing proceedings.

Q. Have these Consolidated Fees and Miscellaneous Charges been proposed before?

A. Yes. This party proposed these in a table found in **Exhibit MM-2** in 4.2.4; however this table, with minor modifications, is proposed in Table 12 below.

Table 12. Present and Proposed Consolidated Water Fees and Miscellaneous Charges.

Miscellaneous Customer Cost	Company's		**Magruder Proposed Fee or Charge**	Variations in other water districts' charges and fees (present and proposed) by Staff and RUCO
	Present Fee or Charge	Proposed Fee or Charge		
Establish, Re-establish, Re-connect Fee (Regular hours) (Off hours)	$ 30.00 $ 40.00	$ 30.00 $ 40.00	**$ 30.00** **$ 60.00**	$ 20 to $4 0 $ 20 to $ 60
Water Meter Test (if correct)	$ 10.00	$ 10.00	**$ 75.00**	$10 to $81
Meter Re-read (if correct)	$ 5.00	$ 5.00	**$ 20.00**	$ 5 to $25
Move Customer Meter	NA	NA	**Actual Cost**	NA or Actual Cost
Replace an Existing Meter with a New Meter for a Different Rate Category at the Customer's Request	None (a new charge)	$150.00	**$150**	No charge has been established.
Non-Sufficient Funds Check Charge	$ 10.00	$ 10.00	**$ 30.00**	$10 to $25
Late Fee Charge	1.5%/ month	1.5%/ month	**2.0% /month**	NA to 1.5%/ month
Deferred Payment Finance Fee	NA	NA	**1.5% /month**	NA to 1.5% /month
Residential Deposit	2 x average bill			2 x average bill
Non-Residential Deposit	2.5 x average bill			2.5 x average bill
Deposit Required (residential or commercial), Interest on Deposit	In accordance with ACC Rule 14-2-403(B)			
New Service Line Charge (Difference based on size of line)	$130 to $1,620	$156 to $830, Actual	**Higher of $300 or Actual Cost**	$370 to $1,620 to actual cost
New Meter Installation Charge (Difference based on size of line)	$370 to $1,630	$370 to $1,890, Actual	**Higher of $150 or Actual Cost**	$130 to $6,130 to actual costs (plus $120 for AMR)

If the Company's 14 May 2010 agrees with this concept <u>and</u> it proposes to use the above or a modified schedule, then those should be considered to be included with the decision for this case. If, however, based on the Company and responses by other parties differ in concept or actual fees and charges, then it would be proposed that the Company propose a schedule in a tariff filing for Consolidated Fees and Miscellaneous Charges sixty days after the Commission's decision in this case, copies to all parties.

<u>It should be noted that present or proposed "arsenic recovery", "low income" and "winter irrigation" fees, rates or charges are not implemented when rates are consolidated.</u>

The Sewer Water tariffs also have different minimum present charges for

- Commercial Toilets (from $4.12 to $9.41, Staff recommended $12.02),
- Dish Washing Machines (from $31.43 to $75.47, Staff recommended $96.37),
- Laundry Machines (from $7.65 to $17.61, Staff recommended $22.49),

- Wash Racks (from $15.56 to $36.89, Staff recommended $47.10) and
- Rental Rooms (from $7.99 to $10.54).

Only one Consolidated Rate should be proposed for these kinds of sewage services.

2.5 Issue No. 5 – Proposed Consolidated Rules and Regulations.

Q. Has the Company proposed consolidation of its Rules and Regulations?

A. No, as the Last Rate Case deferred this issue to the ongoing proceedings.

Q. Have these Consolidated Rules and Regulations been proposed before?

A. Yes. It is recommended that the Company file with the Commission, RUCO, and all parties a Consolidated Rules and Regulations (R&R), with division supplements, if necessary, ninety days after the Commission's decision in this case. When the Company's writes a Consolidated R&R, used of customer-friendly language and terms should be used through the document, including a glossary of terms and abbreviations/acronyms. It might be suggested that, like *National Geographic*, the writing or comprehensive level be at the ninth grade level. Further, after receipt of the Commission Staff's review of the proposed Consolidated R&Rs, then within sixty days, on the Company's website these new R&Rs will be posted including a Spanish language version.

2.6 Issue No. 6 – Proposed Water Demand Side Management Program

Q. Has the Company proposed a Water Demand Side Management Program?

A. No.

Q. Why do you feel a Water DSM Program is needed for AAWC?

A. First, it is expected that the conservation-oriented Consolidated Rates will result in less water usage by its customers, as was demonstrated in the Company's Report on the Anthem rate tier impact included in its Rebuttal filing. This report demonstrated that the Company has the ability to analyze and accesses the impacts of water conservation on the usage patterns of its customers. Such a report for all water districts would be necessary, at least annually, so that the impacts of water conservation can be measured and its impact of the Company's Total Revenue from this rate case monitored, understood, and appropriate compensation, if any, provided for delivering less water to its customers. The Company should NOT lose revenue when its customers conserve water.

Second, a series of Water DSM programs for water and sewage water, such as suggested in 1.6 above, should be proposed annually to the Commission for review and possible implementation. Each such Water DSM program needs to include similar factors used by the

Commission in its electric and natural gas DSM process but adjusted for water and sewage water DSM. These programs should be proposed in an Annual Water DSM Program Report on 1 March, for review by the Commission by 1 August, for implementation on 1 October.

Third, both the lost revenue (from the Total Revenue) and implementation costs for Water DSM programs should be returned from the customers in the form of a 'Water DSM adjustor" fee. In the Company's Annual Water DSM Report, it will include how this fee is calculated. This calculation should include the Company's savings by having to deliver less water due to conservation, including electricity, O&M, equipment and supplies not used due to less products delivered than calculated in the Total Revenue.

As this is a new process, it might be advantageous to hold a workshop on this issue prior to first implementing its Water Demand Side Management programs. Again, these considerations should be included in the Company's proposed program.

2.7 Issue No. 7 – Proposed Water Management Program

Q. Has the Company proposed a Water Loss Management Program?

A. No. However, this Party recommends that this program be implemented with financial incentives for excellent performance and disincentives for poor performance discussed above in 1.7.

Q. How would you recommend such a Water Loss Management Program?

A. No, however, this Party recommends that such a program be created, through a workshop process, so that a Water Loss benchmark level is established for each water and sewage water district. Based on the results of such workshops, a financial incentive process should be developed to reward the Company for performance better than a Water Loss benchmark and to penalize the Company for performance lower than a Water Loss benchmark at the district level.

A Water Loss Management Program could be implemented within the above Water DSM process, as proposed in 2.6 above. The Annual Water DSM Report could be used to report the measured water loss for each district, and when performance is rate as "excellent", then a determined positive adjustment in Total Revenue is added and when rated as "poor", then a predetermined negative adjustment in Total Revenue be subtracted. Since Total Revenue is used to calculate the Water DSM Adjustor fee, this could be used as a way to incentivize a Water Loss Management Program. It is proposed that the Company include a Water Loss Management Program within the Water DSM process in 1.6 above.

Section 3 – Responses to Testimonies and Public Comments

3.1 Response to the Commission Staff's Proposed Consolidated Rates.

The Staff submitted Direct Testimonies by Mr. Eligah Abinah and Mr. Jeffrey Michlik on 29 March 2010, hereafter referred to as the Abinah Testimony and Michlik Testimony.

Q. Do you agree with the Abinah Testimony?

A. In general, no. The Abinah Testimony states:

> "Staff believes when and when it [rate consolidation and/or system interconnections] makes sense and where it is technically and financially feasible, rate consolidation and/or system interconnections should be seriously considered by the Commission." [3:15-18]

Response:

This appears to be the right time for rate consolidation because it makes sense, and the Total Revenue has been established through the rate case process in order to make the Arizona-American Water Company's rates both **fair and reasonable**. Continuing charging different rates for the product delivery (water or sewage water) is not fair and reasonable. "Consolidation should happen when all districts have been subject of a [recent] rate case." [**Exhibit MM-1**, 4.2.8.g]

Further, this is NOT the time to consider system interconnections because there are no perceived benefits for the Company or ratepayers. System interconnections are not being proposed by any parties. Further, Mr. Abinah testified that

> "Q. Does a utility have to interconnect in order to have a rate consolidation or STP?
> "A. No. Staff believes that in some instances physical interconnection is not technically feasible, while rate consolidation may be.
> Q. What criteria should be considered in recommending rate consolidation?
> A. ... Proximity may help psychologically getting people to accept single tariff, but **it certainly is not a requirement**. Physical interconnections should be required when system districts are closer and it is technically and financially feasible" [4:5:10 and 23-24; emphasis added]

In this party's view, this psychological benefit is certainly not technically feasible or a financial benefit. No party has recommended physical interconnections between districts.

Q. Did Mr. Abinah testify that there are other considerations necessary to recommend rate consolidation?

A. Yes. He stated the following should be considered:

a. Public health and safety [4:12-21]. In the proposed consolidations, all public health or safety concerns are being addressed only as financial considerations within the consolidated water and wastewater systems.

b. Economies of scale/rate case expenses [5:1-6]. This is a cost-saving benefit of consolidation for the Company, customers and Commission.

c. Price shock/mitigation [5:8-18]. As this party has proposed in 2.2 above, a part of the Total Revenue was shifted from residential to commercial customers as a mitigation measure to deliberately reduce price shock since there are many more residential then commercial customers. Only one water district has an overall residential rate increase (32% for Paradise Valley) and six of seven have overall rate reductions. Overall, commercial customers have rate increases for four districts between 5% and 29%, one with insignificant change, and two have decreases as shown in Table 6 above. Further, commercial customers have two ways to rapidly compensate for higher rates that are to conserve water to lower its monthly bills and/or to raise its prices. The "Anthem Report" shows that "price signals" are understood and that customer can react by conservation fairly soon after a rate increase. The Magruder-Proposed Consolidated Rates have significantly less "rate shock" than the Staff or Company's proposals.

d. Public Policy [5:20 to 6:9]. The Magruder-Proposed Consolidated Rates use water conservation as a driver as suggested by Mr. Abinah. Shifting from groundwater to surface water supply resources requires technical analysis and expenses that are beyond the scope of this case. The design of the Rate Structure should include low-income tariffs with very low "lifeline" rates used in the First Tier rates.

e. Other jurisdictions/municipalities [6:11-12]. The situation before this Commission involves an investor-owned utility with different goals than used by other jurisdictions including municipalities that also include local political objectives beyond the scope of this case.

Q. Do you agree with the Staff's Recommendations in the Abinah Testimony?

A. No. Mr. Abinah recommends for water districts

> "In this instance, **Staff recommends that the Commission maintain the status quo by adopting a stand alone design**." [7:3-4, emphasis added]

Mr. Abinah then recommends for sewage water districts

> "In this instance **Staff recommends that the Commission maintain the status quo by adopting a stand alone design**." [8:2-3, emphasis added]

This party does not concur with either of these recommendations for the rationale stated in Section 1 above, **Exhibit MM-1** and **Exhibit MM-2**. He then continues with, if consolidation is to occur, that it be accomplished on a regional basis [7:6-7] as presented in the Mr. Michlik Testimony.

Q. Do you agree with the Michlik Testimony?

A. In general, no. The Michlik Testimony states:

"Staff recommends approval of its stand-alone rate designs for the Anthem Water District, Sun City Water District, Anthem/Aqua Fria Wastewater District, Sun City Wastewater District, and Sun City West Wastewater District." [Summary]

And

"Staff recommends individual or stand-alone rates for all the Company's Districts, as denoted in Schedules JMM-1 and JMM-2." [3:14-16, emphasis added]

Response:

The Michlik Testimony then proposes, as required by Decision No. 71410, using the Company's model, several scenarios. The water Scenario One is for all water districts and water Scenarios Two and Three for selected groups of water districts. The wastewater Scenario One is for all wastewater districts while Scenario Two is for regional groups.

First, Table 13 below shows the high rate change impacts for each of the three water Scenarios. These are excessive and are not acceptable. These results from the Staff should be rejected as **not being fair and reasonable**.

Table 13 – Residential 5/8 and 3/4 inch Changes for the Commission Scenarios.

Water District	Average Usage				Median Usage			
	Monthly Usage (gallons)	Scenario (% bill change)			Monthly Usage (gallons)	Scenario (% bill change)		
		1	2	3		1	2	3
Sun City West	6,702	-21.85	-31.10	-31.10	6,000	-21.72	-31.61	-31.81
Agua Fria	7,679	-11.72	-5.31	+1.11	6,000	-10.72	-3.20	+4.32
Sun City	7,954	+68.23	+50.30	+50.30	7,000	+68.14	+48.74	+48.74
Bullhead City	8,070	+57.77	+68.87	+17.21	5,000	+54.87	+69.27	+18.85
Anthem	9,616	-14.34	-8.97	-3.60	8,000	-15.24	-9.24	-3.24
Havasu	9,786	-35.88	-31.91	-52.95	5,000	-40.08	-34.50	-54.01
Mohave	10,239	+60.05	+69.81	+16.80	7,000	+56.92	+68.99	+17.69
Tubac	11,740	-33.50	-29.49	-52.54	7,000	-38.68	-33.96	-54.01
Paradise Valley	24,954	+28.89	+36.38	+50.82	10,000	-13.04	-7.73	-2.42

Second, scattered throughout the Staff's testimony are various unique adjustments and such as for sprinklers and seasonal rate for lawn maintenance. All these adjustments, including arsenic recovery fees should be consolidated during this one-time rate consolidation event. For example, there is a Company proposed "Infrastructure Improvement Surcharge" for Sun City [9:1-15] that the Staff opposed. This should be absorbed into the Consolidated Rate along with ALL other infrastructure costs. Other Staff recommendations, such as elimination of the Anthem "Capacity Reservation Charges CRC-1" [6:12-14] are very appropriate during this one-time cleansing of rates for all these districts.

Third, the Staff recommended various sewage minimum fees for commercial toilets, dish washing machines, laundry machines, and wash racks, as shown in 2.4 under Consolidated Fees and Miscellaneous Charges. These should be the same for all sewage water districts.

Additional responses will in the Company's responses below.

3.2 Response to Company's Proposed Consolidated Rates.

Q. What did the Company propose in its Rebuttal to the Commission's Proposals?

A. The company filed Rebuttal Testimonies from Mr. Tomas Broderick and Ms. Constance Heppenstall on 7 April 2010, hereafter referred to as the Broderick and Heppenstall Testimonies.

Q. Did the Company agree with the Staff's Proposed Consolidated Rates?

A. In general terms, the Company did not find the Staff's Scenario One acceptable and proposed a Variation. Scenarios Two and Three were rejected by the Company.

Response:

This party concurs, in general, with the Company; however, the Magruder Consolidated Rate proposal goes significantly farther in reducing rate shock and increasing the conservation impacts of the design of the Rate Structure.

Q. How did the Company propose to reduce rate shock for the Sun City and Mohave water districts?

A. The Company's variation for Scenario 1, used transition period for several years to reduce rate shock with the Total Revenue remaining constant [Broderick Testimony 13:9-22].

Response:

This party concurs with both using a transition period and keeping the Total Revenue constant. These two features are embedded in the Magruder Proposed Rates; however, the calculations for a three-year transition period were not included because this party could not make that part of version 3 of the model to work. The data in Table 10 Assumptions were used for the first step, as shown in 2.2 above.

In the Magruder Proposal, rate shock was significantly reduced for all rate classes and categories by a shift of 3% of the residential rate burden to the Commercial Rate Class, as previously presented. This was used specifically for three objectives to:

(1) Provide very low "lifetime" rates for all customers, especially for those on low incomes,

(2) Reduce the rate consolidation impacts on Sun City and Mohave, and

(3) Provide incentives in terms of price signals to all customers to conserve water.

The adjustment of rates for each Tier and Tier widths were optimized to promote these three objectives. The only significant residential customer impact resulted in the Paradise Valley water district, which prior testimony in the First Rate Case acknowledges was trying to conserve water; however, that impact was significantly smaller than any proposed by the Staff or Company.

These higher rates will provide the price signals to continue that water district to conserve. The lowest rates provide a "lifeline" for all customers, especially the lowest income customers. Since these are applied for equally to all customers, then they are **reasonable** and **fair**.

Q. What is an issue where consolidation differences occurred between the Staff and Company?

A. The issue concerning consolidation of the residential 5/8 & 3/4-inch minimum charges with the 1-inch minimum charges. The Staff did not propose the consolidation of the Service Charge for these two rate categories. The Company is seriously concerned about the impacts of changing the water connections to the smaller fittings from a fire safety point of view so that customers can have lower monthly minimum charges. [Broderick Testimony, 1:23 to 14:9]

Response:

This party concurs with the Company's concerns; however, a different solution was used in the Magruder Rate Consolidation proposals.

The monthly 5/8 & 3/4-inch Service Charge was proposed at $15.00 and a 1-inch Service Charge at $25.50 because there are many other customers who have 1-inch connections. To reduce the impact of changing to a smaller water connection meter, a new "fee" of $150.00 was added as a standard fee for a customer requested meter connection change.

With a significantly smaller difference between the Fixed Charges for these two rate categories and a new "meter change fee", the financial incentive for customers to switch meters will be greatly reduced. The low Service Charge of $22.50, which is below what should be charged based on pipe sizes, and "meter change fee" are common for all residential and commercial rate categories in all water districts. This should greatly reduce this issue, and should be re-evaluated in the next rate case, as the 1-inch Service Charge was artificially reduced.

Q. Do you agree with the Company that other Sub-Groups of Districts are sensible?

A. This Party most definitely agrees that any sub-group would be counter to the benefits of consolidation. The statement by Mr. Broderick that "if the Commission determines that rate consolidation is appropriate, the only sensible and valuable long-term approach is state-wide consolidation with a transition percentage that mitigates the short-term increases" [Broderick Testimony, 15:5-7]

Q. Should Non-Potable Water Rates be consolidated?

A. As testified by Mr. Broderick, this provides a consistent framework for all districts and a proposed benchmark approach is recommended [Broderick Testimony, 15:8-21]. This party concurs with the ongoing approach used by the Company and its proposed discounts. The

Company's use of $2.50/1000 gallons for non-potable water [Broderick, 16:20] was used in the Magruder Consolidate Rates proposal.

Q. What is your opinion of the Anthem Water District study in the Broderick Testimony?

A. This is an outstanding study and very timely for the ongoing considerations. This is the kind of analysis that I have discussed earlier that will be necessary for Water Demand Side Management Reports, if approved by the Commission.

Response:

Even though this was a one-year study, when a series of similar cumulative reports are assessed, trends much firmer. The key conclusion from this report that the price signal from the new tier rate design reduced water consumption by 5% and that the Company needs to achieve its Total Revenue. This is a reduction in only the volumetric rate, not the total compensation received by the company; however, the concerns that in the last sentence of this report states

> "The implication of water conservation on revenue stability should be a matter of importance that should be addressed when matters of water conservation and rate design are addressed." [Anthem Report p. 12]

This statement needs to be a key issue, if the Magruder-proposed Water DSM and Water Loss Management Programs are adopted. The importance of "annual" checkups on the fair balance between revenue and conservation must be maintained and openly discussed, debated, and deliberated for fairness to the Company.

Q. Do you have any objections to the Company's Model?

A. No, the Heppenstall Testimony has an excellent description of this model. One area where it might have different result would be if the Total Revenue from the ongoing rate case had more than minimal changes between the Phase I hearings through approval by the Commission.

3.3 Response to Other Consolidated Rate Filings.

Q. Did any other parties provide Consolidate Rate Filings?

A. Mr. Hansen has filed such a Testimony. It is my opinion, that his concerns will be greatly reduced when he has reviewed my Testimony, herein.

3.4 Response to Customer Complaints and Support Comments.

Q. What is you opinion of the hundreds of complaints received by the Commission?

A. Many of these are common complaints whenever any rate increase is being discussed at the Commission. These complaints are one reason why the fixed and variable charges in rates were adjusted to reduce this one-time change to a minimum. When reading many "complaints"

based on the Magruder-proposed Rate Consolidations, as a package, many of these actually support the three key principles used in the design of the Rate Structure. In my opinion, these short-term issues will be forgotten as Arizona-American Water Company become more efficient.

Appendix A – Magruder Exhibits

Exhibit MM-1 – Excerpts from Marshall Magruder Reply Brief in the First Rate Case (docket 09-0227), Section 4

Exhibit MM-2 – Excerpts from Marshall Magruder Reply Brief in the First Rate Case (docket 09-0227), Section 2

Exhibit MM-1

Excerpt from the Marshall Magruder Reply Brief of 15 May 2009 in Commission Docket Nos. W/SW-010303A-09-0227, pages 19 to 41, Section 4, "Rate Consolidation for All Water Districts"

NOTES CONCERNING THIS EXERPT:

1. It should be noted that this excerpt used revenue and rate data from the First Rate Case that has been modified for this case; therefore, please see the basic testimony for actual numerical values and consider those in this excerpt as representative examples of the important principles herein.
2. The pagination and footnotes were not changed to match the original.

Quote:

Section 4

Issue No. 3

RATE CONSOLIDATION FOR ALL WATER DISTRICTS

4.1 Summary of Issue No. 3

This party supports full rate and fee consolidations including having the Company, RUCO, and ACC Staff submit a single set of Consolidated Rate Schedules, Fees and Rules and Regulations, based on the rates being proposed by each as a later phase in the case for all five water districts and the next Arizona-American rate case all other water districts should be integrated within revised Consolidated Rates and Fees in order to have *fair and reasonable* rates throughout Arizona. (Magruder Brief, 24; 27-28)

In general, all RUCO, Staff and Company all support tiered rate structures and rate consolidation. There were no recommendations against consolidation; however, when and the level or degrees of consolidation are where differences lie. <u>These differences will be the ultimate decision on the Rate Consolidation issue, in my opinion, with the most significant impact on ratepayers than any other issue in this Rate Case</u>. (*Ibid*, 29, original underlined)

4.2 Replies to Post Hearing Closing Briefs.

4.2.1 Long-Term Benefits of Consolidation to Customers, the Company, and Shareholders.

<u>Company Brief</u>.

Mr. Townsley testimony stressed the "long-term benefits to customers of consolidation for ratemaking purposes between Arizona-American districts." (Company Brief, 6)

The Company conditionally supports Rate Consolidation because of "improved rate case efficiency, improving ability to make needed capital investments in smaller districts without imposing burdensome rate increases, improving ability to acquire small troubled water systems, and a desire to bring the tariff structure of water and wastewater utilities more in line with those of other regulated utilities in Arizona, that all support consolidation on a philosophical basis." (*Ibid,* 49)

Mr. Herbert is a witness for AAWC and providing his excellent background shows he is one witness with Company-experience in this matter, and supports consolidation of <u>all</u> financial and operational aspects for <u>all</u> water districts. (Magruder Brief, 31)

<u>RUCO Brief</u>.

A completed and comprehensive consolidation analysis was performed by RUCO for all districts in question other than Paradise Valley. (RUCO Brief, 15)

This analysis resulted in a consolidated Service Charge of $9.59. As usual, the greatest reductions occur for the highest service charge, with less significant increases for those with the lowest service charge which is fairer than the present situation. (Magruder Brief, 31)

In an overall view, using $9.59 provides more "rate relief" compared to rate "shock", which seems also to be fair and reasonable. Similarly, the proposed Company Service Charges to a Consolidated Service Charge has more "rate relief" occurs compared to rate "shock." (*Ibid*)

Staff Brief.

The Staff is "supportive of Rate Consolidation, where it is technically and financially feasible." (Staff Brief, 20)

The Staff did not perform a comprehensive consolidation rate analysis.

Magruder Reply.

This party fully agrees that all customers will definitely benefit with consolidation but for some their rates may increase; however, there are also numerous benefits to the Company as well as administrative costs, fewer tariff rates and associated filings, better company focus, equalization of existing disparities between water districts, lower rate case costs, so the Company can better focus on its customers' need and provide better service and lower overall costs. With reduced costs, shareholder benefits increase with higher dividends. (Magruder Brief, 25)

One-time costs for smaller districts would be absorbed in larger customer district with much less impact than the same one-time cost for a smaller district. There would be one rate case for these six water districts instead of six to thirteen cases now. Additional workloads for the Company, RUCO and ACC Staff would be avoided if only one rate case was being filed. (*Ibid*)

Due to fundamental differences between water and wastewater districts, it appears reasonable for the wastewater districts to be consolidated but separately from the others. (*Ibid*)

For an example of equalization of disparities between different water divisions, assume the following two water districts, using hypothetical numbers to show effects of consolidation is in Table 6. In this example, consolidating increased the Large District's rate by $0.48 and reduced the Tubac District rate by $19.52. Now, is consolidating "fair and reasonable" or not? In this Party's opinion, it is fair and reasonable. In addition to "cost of service" example, the same impacts would apply for the water volume rates. (*Ibid*, 26-27; Table 8, 28)

Table 6. Example of Consolidation Impacts for a Large and a Small District.

Factor	Tubac District (a)		Large District (b)
1. Number of customers	500		20,000
2. Service Charge	$40.00		$20.00
3. Monthly Revenue (fixed) (1 x 2)	$20,000		$400,000
		Consolidated	
4. Number of Customers (1a + 1b)		20,500	
5. Service Charge (3a + 3b)/(1a + 1b)		$20.48	
6. Monthly Revenue (fixed) (4 x 5)		$420,000	

In the recent UNS Electric rate case, the Mohave and Santa Cruz County residential and small commercial rates were finally consolidated after five decades. The smaller Santa Cruz County saw an 8% reduction in small business rates while Mohave County rates increased about 2% based just on consolidating rates in each rate category. (*Ibid*)

4.2.2 Specific Impacts on Service Charges due to Consolidation.

Company Brief.

Mr. Townsley testimony stressed there are "long-term benefits to customers of

consolidation for ratemaking purposes between Arizona-American districts." (Company Brief, 6)

The Company consolidation analysis used Proposed rates, and several different water districts, including some that are not included in this rate case. Still, this gives a picture of relationships using proposed rates. (Magruder Brief, 34)

The Company's determined consolidated service charge was $15.59 for the proposed rates. We see significant decreases for Tubac, Paradise Valley and Havasu, and minor increases for Agua Fria and Sun City West and Mohave Water in Table 7. (*Ibid,* and Table 11, 33)

Table 7. Changes due to Consolidation on Proposed Service Charges.

Water District	Change	Difference in Present Rates	Calculation (Consolidated minus Present)
Mohave	Increase	$ + 3.59	(15.59-12.00 = +3.59)
Sun City West	Increase	$ + 0.59	(15.59-15.00 = +0.59)
Agua Fria	Increase	$ + 0.59	(15.59-15.00 = +0.59}
Havasu	Decrease	$ - 12.41	(15.59-28.00 = -12.41)
Paradise Valley	Decrease	$ - 12.41	(15.59-28.00 = -12.41)
Tubac	Decrease	$ - 16.91	(15.59-32.50 = -16.91)

RUCO Brief.

A completed and comprehensive consolidation analysis was performed by RUCO for all the districts in question. (RUCO Brief, 15, Magruder Brief, 32-36)

The RUCO analysis resulted in a consolidated Service Charge of $9.59 for five districts. Table 8 shows in the inequity in service charges that now exist because the service charge cost are not consolidated, with unfair discrimination on customers who receive the same product. As usual, the greatest reductions occur for the highest service charge, with less significant increases for those with the lowest service charge. (Magruder Brief, 31 and Table 10, 33)

Table 8. Changes due to Consolidation on the Existing Service Charges.

Water District	Change	Difference in Present Rates	Calculation (Consolidated minus Present)
Sun City West	Increase	$ + 3.72	(9.59 - 5.87 = +3.72)
Mohave	Increase	$ + 0.84	(9.59 - 8.75 = +0.84)
Agua Fria	Increase	$ + 0.51	(9.59 - 9.08 = +0.51)
Paradise Valley	Increase	$ + 0.07	(9.59 - 9.65 = +0.07)
Havasu	Decrease	$ - 2.19	(9.59 - 11.87 = -2.19)
Tubac	Decrease	$ - 10.09	(9.59 - 19.68 = -10.09)

When comparing Present to the Consolidated Service Charge, one sees the present $9.59 or proposed $15.59, consolidation provides more rate "relief" compared to rate "shock". This is fair and reasonable. Similarly, comparison of the proposed Company to a Consolidated Service Charge, again, more rate "relief" occurs compared to rate "shock." (*Ibid,* 32)

Staff Brief.

The Staff did not calculate a comprehensive Service Charge.

Magruder Reply.

When using the Proposed Consolidate Service Charge, the change for those with lowest rates is much less significant than for those with the highest proposed service charges.

Table 9 shows Basic Service Charges with the present rates and proposed RUCO, Staff and Company proposed rates. These vary from $5.87 to $ 32.50. (*Ibid,* 32 and Table 9)

Mr. Hebert (Arizona-American witness) stated the highest rates see the greater decreases and the lowest rates, the smaller increases when consolidating is borne out here. (*Ibid,* 31)

Table 9. Consolidated and Unconsolidated Basic Service Charges
(Residential 5/8 and 3/4-inch Meters)

Consolidated Service Charge (RUCO)	AAWC Present Basic Service Charge					
	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water	Paradise Valley[4]
$ 9.59	**$ 9.08**	**$ 5.87**	**$ 19.68**	**$ 11.78**	**$ 8.75**	**$ 9.65**
	RUCO Proposed Basic Service Charge					
	$ 11.87	**$ 13.81**	**$ 29.34**	**$ 25.66**	**$ 10.30**	**$ 26.68**

Consolidated Service Charge (AAWC)	AAWC Proposed Basic Service Charge					
	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water	Paradise Valley
$ 15.59	**$ 15.00**	**$ 15.00**	**$ 32.50**	**$ 28.00**	**$ 12.00**	**$28.00**

Consolidated Service Charge (ACC Staff)	**ACC Staff Proposed Basic Service Charge**					
	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water	Paradise Valley
Not calculated	**$ 14.55**	**$ 15.30**	**$ 28.73**	**$ 24.54**	**$ 9.10**	**$ 28.00**

4.2.3 Specific Impacts on Consumption Rate Charges due to Consolidation.

Company and RUCO Briefs.

The Company and RUCO did not offer any consolidated consumption rates in its Brief for the Final Schedules but did in earlier testimonies.

Staff Brief.

The Staff did not calculate consolidated consumption charges.

Magruder Reply.

RUCO's Mr. Moore consolidated the commodity (volumetric) usage charges by determining a common three-tier rates for residential customers (5/8 & 3/4-inch) and two-tiers for all other customer categories. Table 10 compares this residential rate category. (Magruder Brief, 33; Table 12, 34)

Table 10. Consolidated and Unconsolidated Existing Commodity Charges.
(Residential 5/8 and 3/4-inch meters)

Commodity Usage (at $/1000 gallons)	AAWC Present Rate Design					
	RUCO Consolidated Rate	Agua Fria	Sun City West	Tubac	Havasu	Mohave Water
First 4,000 gals	**$1.2443**	$1.5398	$1.3092	$1.89	$1.6802	$0.85
Next 10,000 gals.	**$2.0757**	$2.2198	$1.7442	$2.85	$2.1852	$1.30
Over 14,000 gals.	**$2.3270**	$2.6468	$2.0102	$3.41	$2.5000	$1.50

Again, *the water division with the highest rates received the greatest decrease when consolidated, and the water division with the lowest rates the highest rate increases.* (*Ibid,* 34)

The Company also computed a consolidation scenario, with different assumptions when compared to RUCO's analysis. The Company's analysis used Proposed rate, and different water districts, including some not included in this rate case. Still, this gives a picture of relationships using the Company's proposed rates. (*Ibid*)

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[4] Final Schedules for the Company, ACC Staff, RUCO and Magruder combined the present Paradise Valley 5/8 and 3/4-inch rate categories into one, which is simulated by averaging herein.

Table 11 shows consolidated commodity rates compared to the proposed Company's rates; however, without considering the Final Schedules. Again, the *water districts with the highest commodity rates, received the greatest rate reductions, while those with the lowest rates, the smallest rate increases.* (*Ibid*)

It is not feasible to directly compare these "consolidation" analyses. Mr. Moore comprehensive consolidation used present rates, excluded Paradise Valley, and derived common three-tier commodity blocks, to equalize Company return with the Test Year. (*Ibid*, 35)

Table 11. Consolidated and Unconsolidated Proposed Commodity Charges.
(Residential 5/8 and 3/4-inch meters)

Company's Proposed Rate Design							
Commodity Usage Blocks (at $/1000 gallons)	**Company's Consolidated Rates**	Agua Fria	Sun City West	Tubac	Havasu Water	Mohave Water	Paradise Valley
First 4,000	**$1.500**	$2.926	$2.880	$3.780	$4.033	$1.471	$1.288
4,001-10,000		$3.463				$1.625	
4,001-13,000	**$3.463**				$4.196		
4,001-15,000			$3.171				
4,001-20,000				$4.850			$2.233
Over 10,001						$1.744	
Over 13,001	**$3.670**				$4.555		
Over 14,001							
Over 15,001			$3.413				
Over 20,001				$4.950			
20,001-65,000							$2.796
65,001-125,000							$3.359
Over 125,001							$3.879

The Company's "typical" Consolidated Bills for residential customers are in Table 12 for the Company's proposed rates, different water companies, and other assumptions that make this analysis not suitable to make any decisions in this rate case because it is incomplete and needs correction to reflect the current proposed rates. (*Ibid*; Tables 13 and 14, 35)

Table 12. Consolidated Proposed Impacts for Typical Residential Bills and Total Revenue.

Water District	Typical Bill	Proposed Changes WITHOUT Consolidated Rates	Total Revenue
Tubac	$41.01	+47.13% rate INCREASE	$0.3 million
Havasu	$35.85	+42.90% rate INCREASE	$0.6 million
Mohave	$31.77	+37.22% rate INCREASE	$1.7 million
Agua Fria	$30.09	+17.75% rate INCREASE	$3.5 million
Paradise Valley	$66.94	+2.95% rate INCREASE	$0.3 million
Sun City West	$28.35	-15.69% rate DECREASE	$1.3 million
Water Districts in the Company's Analysis that are ***NOT*** in this rate case.			
Sun City	$32.26	+136.00% rate INCREASE	$8.4 million
Anthem	$34.15	+47.74% rate INCREASE	$44.6 million

The variety of "blocks" in Table 11 show how dysfunctional the existing rate and proposed rate schedules are for this Company. There should be only one block structure for all water districts. (*Ibid,* 36)

First, there is no logic when setting the limits for the rate blocks. The distribution of the water usage is a non-Gaussian (or normal) and more like a chi-squared (X^2) distribution, with a fast rising peak closer to zero and a long tail. A chi-squared distribution has its mean or cumulative 50% distribution nearer to the origin, thus when an average customer consumes between 7,500 to 12,000 gallons. The rate structure must have cost "signals" for those near-mean usage customers. (*Ibid*)

Second, second tiers start at 3,001 or 4,001 gallons to 10,000, 13,000, 15,000, and 20,000 gallons. The range for this "second" tier extends from 3,000 to 14,000 gallons, too wide and challenging for a consumer to see the price signal to reach (or reduce demand) the first tier. The chi-squared tail extends for tens to hundreds of thousands gallons with price tiers only in the Paradise Valley after 20,001 gallons, with the last starting at 125,000 gallons. (*Ibid*)

Third, the Company's Consolidated Rate second tier is 9,000 gallons wide. It may be divided to make obvious and reachable blocks for customers to lower water bills by conservation. (*Ibid*)

Fourth, looking at Table 11, one sees 13 different tiers used by six water divisions for the <u>same rate category</u>. I proposed a standard 4,000-gallon blocks in the residential and small commercial rate categories. (*Ibid*)

Furthermore, all larger residential and commercial commodity rate categories have just two tiers. Many small commercial (5/8 and 3/4-inch), such as in the Tubac district, have very similar demand demands (with a lower average) than the residential counterparts. These commercial categories should parallel the residential rate tiers. Multiple tier blocks for all other rate categories should be in the resultant tariff from this rate case. Just like the residential category that is discussed extensively, commercial enterprises can and will always look for ways to lower rates, IF THEY CAN, to a lower tier. As the present and proposed rate structure is now constructed with only two tiers, reaching the first tier rates is nearly impossible unless your consumption is just over the second tier break point. This is *utterly useless*. (*Ibid*)

At least five tiers for larger meters is recommended, with two breakpoints below the chi-squared mean for example near the 35% and 45% points, the third at 5% past the mean (55%), and fourth and fifth, near the 65% and 80% points on the tail. The additional breakpoints on the tail will provide significantly more revenue to the Company in Exhibit M-4. (*Ibid*)

4.2.4 Consolidation of Miscellaneous Charges and Fees.

<u>Company, RUCO, and Staff Briefs</u>.

The Company, RUCO and Staff Brief did not discuss miscellaneous charges and fees in their Briefs; however, the Final Schedules presented various charges and fees for the different water districts. Consolidation of these fees and charges was not discussed.

None of these charges and fees appears isolated by water district; however, the Company is using <u>different</u> <u>rates/fees</u> <u>for the same service at different water districts</u>. If nothing else happens in this rate case concerning consolidation, this is the easiest consolidation step. (*Ibid, 37*)

<u>Magruder Reply</u>.

No standards are used for miscellaneous charges and rates, with significant differences between charges for the same service in different water districts. (Magruder Brief, 19)

Miscellaneous customer costs that should be included and consolidated in this rate case are in Table 13. (*Ibid* and Table 6, 19-20)

It is probable that new water lines will be lengthy in rural areas. This party objects to having existing customers funding ANY such developer's expenses. New customers must fund new development, and not today's ratepayers, for the actual cost or line extensions and meters. Service Line and Meter Installation Charges must also be borne by new customers. (*Ibid*)

Meter Test and Re-reading Meter (when correct) need to account for higher vehicle fuel costs, thus these were increased. Also increased were the cost for a check without specific

funds (NSF) to $30.00, a more commonly used fee. The Late Fee charge is raised to a simple 3.0% per month (36.0% APR), the maximum permissible interest rate. The Deferred Payment Financing fee at 1.5% per month (18.0% APR) is half of the Late Fee charge. To obtain deferred financing the ratepayer has committed to makeup unpaid bills to the Company and a lower Deferred Payment Financing fee is fair and reasonable. This could help the Company collect its fees and charges by discouraging higher costs for non-payment. (*Ibid*, 20; Table 6, 19-20)

Table 13. Present, Proposed, and a Standard for Miscellaneous Charges and Fees.

Miscellaneous Customer Cost	Company's		**Magruder Proposed Charge**	Variations in other water districts' charges and fees (present and proposed) including Staff and RUCO
	Present Charge	Proposed Charge		
Establish, Re-establish, Re-connect Fee (Regular hours) (Off hours)	$ 30.00 $ 40.00	$ 30.00 $ 40.00	**$ 30.00** **$ 60.00**	$ 20 to $4 0 $ 20 to $ 60
Water Meter Test (if correct)	$ 10.00	$ 10.00	**$ 80.00**	$10 to $81
Meter Re-read (if correct)	$ 5.00	$ 5.00	**$ 20.00**	$ 5 to $25
Move Customer Meter	NA	NA	**Actual Cost**	NA or Actual Cost
Non-Sufficient Funds Check Charge	$ 10.00	$ 10.00	**$ 30.00**	$10 to $25
Late Fee Charge	1.5%/ month	1.5%/ month	**3.0% /month**	NA to 1.5%/ month
Deferred Payment Finance Fee	NA	NA	**1.5% /month**	NA to 1.5% /month
Residential Deposit	2 x average bill			2 x average bill
Non-Residential Deposit	2.5 x average bill			2.5 x average bill
Deposit Required (residential or commercial), Interest on Deposit	In accordance with ACC Rule 14-2-403(B)			
Service Line Charge (Difference based on size of line)	$130 to $6,120	$156 to $830, Actual	**Actual Cost**	$370 to $1,620 to actual cost
Meter Installation Charge (Difference based on size of line)	$370 to $1,630	$370 to $1,890, Actual	**Actual Cost**	$130 to $6,130 to actual costs (plus $120 for AMR)

Specific areas that should be consolidated include:

1. General & Administrative (believed to have been completed)
2. Cost of Service and Volumetric Charges with more and standard tiers deployed
3. Arsenic treatment costs (service and volumetric) included in 2 above
4. Taxes, including social security and Medicare, and other Rate Base Costs
5. Service Line and Meter Installation Charge (change all to "actual cost")
6. Establish, Re-establish, and Re-connect fees during regular and off hours
7. Water Meter Test, (if correct) and Re-read the Meter (that is good)
8. Non-Sufficient Funds to check charges and Late fees, Deferred Payment Finance Charge, Residential and Non-Residential Deposit Interest on Deposits (*Ibid, 37)*

4.2.5 Consolidation of Rules and Regulations.

Company, RUCO and Staff Briefs.

There were no comments on Rules and Regulations in any of these Briefs.

Magruder Reply.

The Company's Rules and Regulations (R&Rs), submitted, as a part of this rate case, should be consolidated. In respond to a Magruder Data Request, these R&Rs have not been

translated into Spanish. (Magruder Brief, 28)

4.2.6 Impact of White Tanks Plant on Consolidation.

Company Brief.

The Company's Brief argues that its White Tanks Plant proposal is "fair" and "will mitigate rate shock and enable Rate Consolidation in the near future." (Company Brief at 19)

The Company continues that if its White Tanks Plant proposal were not approved, it would have to file another rate case to put "the entire White Tanks Plant in rate base." (Company Brief at 19)

The Company also uses the ACC Staff testimony by Mr. Becker who, under usual conditions, would support such a request in the next Agua Fria district rate case. (Company Brief at 19)

The Company concludes that this alternative would result in a "significant future rate increase for Agua Fria customers" and "throw off the consolidation timeline" (see below) (Company at 20)

RUCO Brief.

In summary, RUCO recommends the "Commission should reject the Company's proposal... associated with the White Tank plant in rate base." (RUCO Brief at 4)

Staff Brief.

"The Commission should reject the Company's request to include CWIP in rate base in this case and any associated related adjustments to increase depreciation and property taxes related to inclusion of CWIP in rate base should also be rejected." (Staff Brief at 7)

Magruder Reply.

It issue exists because the rates are NOT consolidated and as a result will be unfair, no matter how determined without consolidation, to the ratepayers in Agua Fria water district. This case can be described as a global "rate shock" due to the extraordinary rate increases proposed by all but this party. (Magruder Brief, 41)

The issue of "when" to include this project should be in accordance with normal rate case procedures with consolidated rates. Since we have multiple and different sized water districts, any capital expense perturbation is unfair to the smaller division, as shown in Table 8. (*Ibid*, 26; Table 8, 29)

This party agrees with the Company on this issue this is unfair to the Agua Fria ratepayers. Only after it is operational should this plant's cost go into a Consolidated rate base in order to be fair to all customers, shareholders, and the Company when the other Arizona-American water districts are integrated into Consolidated Rates and Fees. The prudently assessed impacts of the White Tanks, like all capital projects, must be spread across all ratepayers in a Consolidated Rate base, as just to those in Agua Fria water district is unfair and not reasonable.

4.2.7 Was adequate notice provided in this case to proceed with Consolidation?

Company and RUCO Briefs.

This issue was not addressed.

Staff Brief.

Staff was concerned that notice in the instant case was not adequate to notify affected ratepayers, particularly those customers of the districts that were not included, that a rate increase (or decrease) was possible. (Staff Brief, 20)

Magruder Reply.

The Staff witness states "proper notice be given to customers affected by a rate application" in accordance with Arizona Administrative Code R14-2-105(A) and that this notice has not been given to "all the Company's customers". Staff recommends, "Rate Consolidation

can not be undertaken in this docket." Further, he states "due process concerns require proper notice be given." (Magruder Brief, 37)

This Rate Case Procedural Order required Notice of these hearing for this case be placed in newspapers and in billing statement for all customers involved in this rate case. This includes customers of all six water districts and one wastewater district that are impacted by this case and excludes other Arizona-American two water districts and four wastewater district customers not impacted by this case. Consolidation for the one-wastewater district has not been considered. Therefore, only the six water districts are being considered for consolidation and all their customers were properly "noticed" in accordance with the ACC Regulations. The Company also has reported compliance with the Rate Case Procedural Order. (*Ibid*)

This notice included: "The Commission is not bound by the proposals made by Arizona-American, Staff, or any intervenors; therefore, the final rates approved by the Commission may be higher or lower than the rates requested by Arizona-American." (*Ibid*, 38-39)

It appears obvious the Commission may make any changes it deems appropriate and legal as the final result of any and all rate cases. In my opinion, there is absolutely nothing is this notice that would "prohibit" consolidation of these six water districts in THIS rate case. Further, A.A.C. regulations R14-2-105(A) have been met. Therefore, there is no reason why consolidation cannot be implemented based on Notice for these six water companies, without additional "Notice". (*Ibid*, 39)

In this party's opinion, rate consolidation of the six water districts in this case is within the Notice requirements of the A.A.C. and other statutes. All other Company water districts have never been a consideration by this party.

4.2.8 All Urge Consolidation to Proceed with Caution.

Company Brief.

Mr. Townsley supports consolidation "as long at consolidation does not cause further financial harm to the Company." (Company Brief, 6)

He also has some concerns with rate consolidation. The practicalities of district consolidation present significant challenges to both the Commission and Arizona-American. For instance, average customer water bills across Arizona-American's systems range from about $12 per month in Sun City to about $70 in Paradise Valley." Some of these "differences are due to net-plant investment and O&M expense per customer between districts. Proposals for the short term are likely to cause significant public and political consternation. Arizona-American will not support consolidation if the result were to delay rate relief, or otherwise harm the Company." (*Ibid,* 49-50)

RUCO Brief.

RUCO "believes the batter approach would be to consider the [consolidation] issue when all of the districts are the subject of a rate case. This would provide the Commission with the opportunity to consider all the factors necessary to make the best decision. These factors include, but are not limited to, the operational and financial information of all the Districts, the interconnectivity of the systems, and the financial impact on each system. It would also mitigate some of the unintended consequences that will result should the Commission make the decision at this time." (RUCO Brief at 15-16)

Staff Brief.

The Staff feels rate consolidation is a complex issue that has both public and policy ramifications and recommends that before undertaking rate consolidation, the Commission establish certain criteria regarding public health and safety, proximity, economics of scale and rate shock. (Staff Brief, 20)

For Arizona-American, with differing rates among its districts, rates for some customers will decrease while rates for others will increase for others. (*Ibid*)

Before undertaking consolidation, the Company would have to undertake significant public outreach to educate its customers on the issue, something that did not happen within the confines of the instant case. (*Ibid*)

Staff recommends that the Commission carefully consider all aspects and impacts that could result from consolidation in an effort to avoid unintended consequences. (*Ibid*)

Staff testimony addressed areas where work remains before rate consolidation, including:

1. How to deal with different number of, and break point for, rate tiers across the districts.
2. How to account for differing uses of water for irrigation in different districts, particularly in the Paradise Valley Water District.
3. Whether to consolidate commercial rates at the same time.
4. Whether returns on customer classes as a result of cost of service studies are or should be the same in the different districts.
5. How to maximize public input, including whether to hold workshops.
6. How to educate the public about the pros and cons of rate consolidation.
7. How Staff, RUCO, and other parties would participate in the public process.
8. Whether to flash cut to consolidated rates or to phase them in.
9. Whether to consolidate sewer rates at the same time that water rates are consolidated.
10. What economics of scale would result from consolidation? (Company Brief, 50)

These criteria are sound and should be evaluated during a consolidation application review. (*Ibid,* 40)

Magruder Reply.

This party agrees but some of these concerns have been overtaken by events. Going through all of these from Company, RUCO to Staff, we see the following:

a. Financial harm. First, rate structure variations are all revenue neutral. Rate consolidation should not impact revenue and do financial harm.
b. Average water bill differences. These differences are mild when compared to the variations in rates being proposed in this case, see Table 1 at 10, Table 2 at 11, Tables 3 and 4 at 13, Table 5 at 16, Table 7 at 21, Tables 8 and 9 at 22, Table 10 at 23, Tables 11 and 12 at 24, and Table 13 at 26 that show much more significant variations without any rationale in this case.
c. Net plant investment differences. These are due to many factors, but as indicated by Mr. Herbert, consolidation is the only solution to smooth out high swings in rates. "The cost of specific programs should be shared by all customers rather than burdening those of the affected area. Rate increases will be more stable and major increases in specific tariff groups will be avoided. "(Magruder Brief, 29)
d. O&M expense differences. These are due to many factors, but as indicated by Mr. Herbert, consolidation is the only solution to smooth out high swings in rates. (Magruder Brief, 29)
e. Public and political consternation. This company presently has a terrible reputation by its customers; mostly because of the extremely high rate changes requested in its rate cases. Personally, I doubt if it could be worse, so concerns about "consternation" are understandable but in reality mute. Therefore, since consolidation will "smooth out" and "equalize" the bothersome peaks and valleys ratepayers now perceive, there could be no better time than the present to consolidate from this view point. (*Ibid*, 40)
f. Rate relief timing. This company perceives that "any" delay in obtaining the increased rates requested in this case will have terrible consequences involving reduced spending on capital projects, personnel reductions, and equipment maintenance due to losing parent company and shareholder support. This case has taken over a year so far with new rates not expected prior to September 2009. In my opinion, a few additional months to really settle the unjust and unfair rates now being implemented are worth the longer-term benefits for shareholders, customers, company integrated work, and regulatory agencies.

g. Consolidate when all of the districts are the subjects of a rate case. At present, 5 of 7 water districts are represented, required Company revenues and test year expenses adjudicated, and necessary financial basis determined, a requirement prior to determine how to collect this revenue. Rate consolidation is revenue neutral. To expend hundreds of thousands of dollars in a future rate case, manpower that has been used in this case, and the necessary audits at some future date, is not cost-effective and delays are benefits of consolidation. There is no need to have all 7 water districts in the same rate case to consolidate these 5 districts. The proposed result will be one large water district (of the 5 herein) that will consolidate with the remaining two later. Three entities will be in the second rate case, not 7, again with consolidation benefits already incorporated for the original 5 districts. Thus, the addition of two smaller districts, as shown time and time again in my analyses, to the larger district will result in less impacts on the larger district and greater on the smaller ones, as they converge into one integrated water company. The cost of 7 rate cases is greater than to consolidate 3 rate cases.

h. All districts in one case provide an opportunity to consider all the factors necessary to make the best decision. By having a two-step consolidation approach, as just explained above, does not mean nor imply "all" operational and financial factors are considered but over two cases (this one and one for the remaining districts), not in one larger future and much more expensive rate case.

i. Consideration of interconnectivity of systems is necessary for consolidation. This involves expenses of connecting to different water districts but is not an essential element of rate consolidation. Both the Company's Mr. Hebert and Staff agree that interconnectivity is NOT required for consolidation, but is a nice to have feature, if possible. (Magruder Brief, 31 and 39)

j. Unintended consequences of consolidation. First, all decisions may have such consequences; however, the Staff has listed at least 10 such considerations that are discussed below. (Company Brief at 50)

k. Commission establishes certain criteria regarding public health and safety, proximity, and economics of scale and rate shock. Pubic health and safety criteria will not change with consolidation. Proximity, as indicated in "l" above, is not a factor in consolidating. Economics of scale is a benefit for many parties, should be a positive outcome; however, having the Commission pre-determine this as a "criteria" for consolidation will not be known until after the consolidation plan is finished. Rate shock occurred long ago, and then the Company submitted its original and revised applications. Any customer, who has a proposed rate increase of over 15%, will have rate shock, at least 80% of the customers in these five districts. Only through rate consolidation will "rate shock" be diminished.

l. Some customers will have rate increases and others decrease with consolidation. As shown, the degree of change is related to the customer base size. Larger divisions will have smaller changes, smaller divisions larger changes, with the resultant changes more beneficial for the smaller divisions as rates become smoother for all.

m. Company needs to take significant public outreach prior to consolidation. The public is presently furious and ill informed about utility rates, not only water, but communications, electric, and gas rate structures. The terms used for each are all different and very confusing as additional "mechanisms" and surcharges only add confusion. Very few understand the fundamentals of the process and rate determination mechanisms used by the Commission, as this is my fifth rate case, in a continuum of learning, I'm in the fifth grade with graduation a long time away. Extensive public outreach has problems in that some small factor maybe blown out of proportion. For example, the Magruder proposed rates will decrease the majority of these on Sun City West who are the loudest objectors to consolidation and rate tiers I have

proposed. Even after explaining, during breaks in this case, understanding that the resultant is lower rates is not understood. Facts need to be published in billing statements that are clear, understandable showing impacts. Educating the public to accept change is challenging and may never be effective.

n. Number of breakpoints and tiers (1). This issue is the heart of consolidation. Many tiers are necessary due to varying demands. Price signals are required. Consumption levels in each district are drivers. As accomplished by RUCO, this can be developed in a fair and reasonable manner.

o. Irrigation water differences (2). Arizona-American is a water company, not an agriculture irrigation district, and as such, is required to deliver safe, potable water. Irrigation water should not be a separate rate category unless used for agriculture, but integrated in the residential/commercial rate categories. The same goes for "fire" water.

p. Consolidate residential and commercial at the same time (3). This party feels that the company's revenue requires both to be consolidated at the same time. In fact, there many are some trades between these two rate classes when consolidating rates.

q. Cost of Service at water district or consolidated level (4). As strongly advocated by the Company's rate structure witness, Mr. Herbert, cost of service must be integrated across the entire customer base, not for each small, individual entity, in order to be fair and reasonable. (Magruder Brief, 31)

r. Maximize public input and decide to hold workshops (5). This is a Company decision but will add to rate case costs. See "m" above.

s. Educate the public about the pros and cons of rate consolidation (6). In my opinion, only as small number of the public will understand this, as stated in "m" above.

t. Participation of Staff, RUCO and other parties in the pubic process (7). Unless prohibited by statue, all knowledgeable-parties should participate.

u. Flash-cut or phase in consolidated rates (8). As is clear in Mr. Herbert's writing, without consolidation, rates are NOT FAIR. Fairness requires remediation of unfair, unconsolidated rates. The multi-phase approach took 50-years for a recent electric rate consolidate, with a half-century of unfair rates.

v. Consolidate sewage and water together or separately (9). As these are different businesses, separate consolidation cases are appropriate.

w. Economics of Scale due to Consolidation (10). See "k" above.

4.2.9 When and How to Consolidate.

Company Brief.

Because of the complexities and potential for unintended consequences, the Company's position is that rate consolidation must be analyzed though a proceeding focusing solely on consolidation issues. (Company Brief, 51)

The Company intends to do the following in a separate and nearly parallel process with its Next Rate Case:

1. Open a separate Rate Consolidation Docket including all of its districts focusing solely on rate consolidation.
2. Request the Commission to re-open this Rate Case and the Next Rate Case under A.R.S §40-252, solely for the purpose of re-examining the rate design consistent with resolution of the Rate Consolidation Docket.
3. If a new rate design were ordered as part of the Rate Case Docket, the A.R.S. §40-252 procedure would allow the final order in this 2008 Rate Case and the final order in the Next Rate Case to be amended solely to adjust rate design.
4. The Commission must rely on the summation of the individual districts' revenue requirements found in the 2008 Rate Case Order and in the Next Rate Case Decision as a basis for new rate design consolidating rates in some or all districts.

5. This procedure would allow the Commission to fully examine Rate Consolidation as a basis for a new rate design consolidating rates in some or all districts.
6. This procedure would allow the Commission to fully examine Rate Consolidation while at the same time allow the Company to implement new rates in each of its divisions on an unconsolidated basis, necessary in the interim to ensure the Company's continued financial health and stability.
7. The Company is willing to support the above actions as best as possible in a manner consistent with completion of the Next Rate Case and Rate Consolidation by December 2010. However, the Company can only control the timing of initial application filings; it has only limited influence on subsequent procedural dates. (Company Brief, 51)

RUCO Brief.

In this case, the Commission is considering only 7 of the 13 water and wastewater districts. From RUCO's perspective, this does not make sense to consider only 7 districts at this time. RUCO believes the better approach would be to consider the issue when all districts are the subjects of a rate case to provide the Commission the opportunity to consider all the factors necessary to make the best decision. (RUCO Brief, 15-16)

Staff Brief.

The Staff recommendation in Mr. Abinah's testimony is that

"The Commission order Arizona-American, in its next rate case, to propose detailed rate consolidation and/or system interconnection plans where the Company believes it is technically and financially feasible." (Magruder Brief, 40)

Staff defines "rate consolidation", also known as Single Tariff Prices (STP) as

"The use of a unified rate structure for multiple utility systems that are owned and operated by a single utility, but that may not be contiguous or physically interconnected." (*Ibid*)

Similar to the Company's Mr. Herbert, we see Mr. Abinah support consolidation even if the water districts are not contiguous or interconnected. In fact, Staff feels that rate consolidation or STP even when not physically interconnected. (*Ibid*)

During Mr. Abinah's oral testimony he suggested that a 12 to 18 month plan be developed leading toward consolidation in one rate case for all districts. Under cross-examination, it appears this is a bit optimistic as this party urged not to spend 50 years consolidate his electric company. He is and rightfully concerned about unintended consequences including analysis of these factors during a consolidation application review, to include as minimum criteria:

a. Public health and safety.
b. Proximity and location.
c. Community of interest.
d. Economies of scale/rate case expense.
e. Price shock and mitigation including a low-income program
f. Public policy.
g. Other jurisdictions and municipalities. (Magruder Brief, 39-40)
   [These factors were discussed above]

Magruder Reply.

In general, this party supports the Company's position in its Brief.

Specific areas that should be consolidated include:

1. General & Administrative (completed)
2. Cost of Service and Volumetric Charges so that more tiers be deployed
3. Arsenic treatment costs
4. Taxes, including social security and Medicare
5. Service Line and Meter Installation Charges (change all to "actual cost")
6. Establish, Re-establish, and re-connect fees during regular and off hours

7. Water Meter Test (if correct) and Re-read the Meter (that is good)
8. Miscellaneous Charges and Fees including Non-Sufficient Funds to check charges and Late fees, Deferred Payment Finance Charge, Residential and Non-Residential Deposit Interest on Deposits. (Magruder Brief, 37)

In addition, the Company's Rules and Regulations (R&Rs), submitted as part of this rate case, should be consolidated into one document, and also made available in Spanish. (*Ibid*)

The published works by the Company's witness, Mr. Paul Herbert, should be used as a foundation for consolidation. (*Ibid,* ¶4.2.3.1, 29-31)

This is not a single or a selected group of water districts issue. All water districts should be consolidated into a single tariff for all water districts and one single tariff for all sewage water districts throughout the entire Company. (*Ibid,* 29)

In general, all RUCO, Staff and Company testimonies all support tiered rate structures and rate consolidation. There were no recommendations against consolidation; however, when and the level or degrees of consolidation are where differences lie. (*Ibid*)

First, Mr. Herbert uses "rate equalization" instead of "consolidation" defined as follows:

> "Rate equalization or single tariff pricing is the use of the same rates for the same service rendered by a water company regardless of the customer's location." (*Ibid*)

Second, Mr. Herbert made very clear the basis for his definition of "rate equalization" (consolidation) as follows:

> "Rate equalization is based on the long-term rate stability which results from a single tariff, the operating characteristics of the tariff's groups, the equivalence of services offered, the cost of service on a tariff group basis, and the principle of gradualism." (*Ibid*)

Third, Mr. Herbert explained how rate equalization provided long-term stability for several areas, that also defines the situation here including the arsenic and White Tanks issues in Arizona, as follows:

> "Utility customer rates are dependent on the total expenses and rate base of the utility and the amount of the commodity which the utility sells. Changes in rate base, particularly, as the result of the Safe Drinking Water Act, have significant potential for adversely impacting the rates for certain areas within a utility.
>
> "The ability to absorb the cost of such projects over a larger customer base is a compelling argument in support of rate equalization. Capital programs will never be uniform in the several operating areas, even over periods of 5 to 10 years. <u>The cost of specific programs should be shared by all customers rather than burdening those of the affected areas. Rate increases will be more stable and major increases in specific tariff groups will be avoided</u>."[5] [Underlined for emphasis] (*Ibid*)

The impacts that Mr. Herbert's approach would have on this case include:

- Consolidate all capital and other costs into one account, shared equally using one set of rate categories for all customers.
- This would "equalize" or level out, the ups/downs in all Arizona-American water districts.
- This reduces the rate complexity in these six very divergent, non-coordinated, and discombobulated rate cases to one rate base and case for all customers.
- By combing ledgers into a consolidated ledger, accounting would be easier; Company's administrative costs lower, and thus reduce long-term ratepayer costs. (*Ibid*, 29-30)

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[5] *Ibid*. 19 at 28 to 20 at 7. [Ex. 3]

In summary, this approach presents a **fair and reasonable** methodology to share capital and other costs across all similar customers. If Consolidated Rates were fully implemented, as recommended by Mr. Herbert, all customers and the Company benefit. The Commission and RUCO also benefit by being able to concentrate on one set of books instead of many. (*Ibid,* 30)

Separation of "water" and "waste water" into two tariffs is assumed. (*Ibid*)

Mr. Hebert's "rate equalization" process considers *similarities* to consider when handling the various operating characteristics in the various water districts. Mr. Herbert discusses this in terms of *similarities*, as follows:

> "There are many similarities in the manner in which the several areas [such as Arizona water districts] are operated. All the systems pump their treated water through transmission lines to distribution areas that include mains, booster pump stations and storage facilities. All of the areas rely on a centralized work force for billing, accounting, engineering, administration, and regulatory matters. All of the areas rely on a common source of funds for financing working capital and plant construction. Inasmuch as the costs of operation are related to functions in which the operating characteristics are the same, the use of equal rates is supported." (*Ibid,* original underlined)

Mr. Herbert has shown O&M activities, in general, are similar for the long-term, thus consolidation is appropriate. Many of these functions are already consolidated by Arizona-American; however, they are then "de-consolidated," using traditional separate division-oriented formulae, to allocate these costs back to various water and sewage water divisions. (*Ibid*)

His explanation of how equivalence of offered services supports consolidation by providing directly applicable evidence those noncontiguous service areas, such as the Arizona-American districts, should consolidate rates, by stating:

> "The use of the same rates in a utility with noncontiguous service areas is supported by the equivalent service rendered in each area. Although there would be considerable debate with respect to the equivalency of the service rendered to different customer classifications, there is no question that the service rendered to a residence in one area is the same as the service rendered to a residence in another area. Residential customers are relatively consistent in their uses of water: cooking, bathing, cleaning and other sanitary purposes, and lawn sprinkling. If customers use water for the same purposes, the service offering is the same and should be priced accordingly. Thus, from this perspective, there is no basis for charging different prices to customers in different areas." [Underlined for emphasis] (*Ibid*, original underlined)

Mr. Herbert resolves if variances in allocated cost of tariff groups warrant the use of separate rate schedules as follows:

> "No, they do not. Charging one group of customers' higher rates because they may be served by a newer plant whose original cost exceeds that of other plants as a result of inflation is *not logical*. The concepts previously discussed outweigh this consideration and justify the goal of moving toward a single tariff. The electric industry reflects such concepts when it serves customers in geographically dispersed areas. A kilowatt-hour delivered in one area has the same price as a kilowatt-hour delivered in another area despite the fact that cost of service studies could be performed to identify differences in the cost of providing service to customers classes in different regions." (*Ibid*, 30-31)

There is recent Arizona precedence for Mr. Herbert's comments concerning consolidation of electric rates. In the UNS Electric rate case, the residential and small business rates in Mohave and Santa Cruz County were consolidated, to eliminate five decades of higher rates in

the smaller county, as I testified there "is no valid basis for continuing separate rates." (*Ibid*, 31)

This water rate case has exactly the same issue but is compounded by many different tariffs.

Other Cost of Service considerations that Mr. Herbert state support rate consolidation:

> "The Company [including Arizona-American] has taken a number of steps in recent years to centralize and consolidate its operations. Common costs which must be assigned or allocated to each operating area to establish tariff group revenue requirements include management fees, corporate headquarters costs, office costs, customer service costs, depreciation expense developed on the basis of Company-wide depreciation rates and income tax expense based on total Company financing and tax provisions. The allocation of common costs, while reasonable, are subject to judgment and may not result in the development of tariff group revenue requirements which reflect precisely the cost of serving each area." (*Ibid*)

Mr. Herbert discusses how a *single tariff will result in higher rate increases in areas where the rates are lower*. Conversely, a *single tariff will have smaller rate increases in areas where rates are higher.* This balancing, equalizing or consolidation, makes rates fair and reasonable. (*Ibid*, original underlined)

In summary, Mr. Herbert summary supports this rate equalization analysis and suggests it be done using gradualism principles, that is, over several rate cases. He specifically stated:

> "Rate equalization is appropriate for New Jersey-American. Such pricing is supported by considerations of the benefits of sharing the impact of capital programs on a Company-wide basis, the significant majority of common costs, the equivalent service rendered, electric industry precedent and the per capita income of affected communities. The best interests of the customers are served through gradualism by continuing to implement rate equalization during this case and in subsequent cases." (*Ibid*)

4.3 Conclusions.

With respect to his concerns, Mr. Townsely is first and foremost concerned about any short-term delay. As a ratepayer, it is the long-term cost for quality service that impacts ratepayers than the Company's financial conditions.

It is my opinion, that RUCO, Staff and the Company can produce Consolidated Rate Schedules for review and comparison, as a separate effort, after this case concludes. The Company's Closing Brief position on this is appropriate. This provides at least three independent views for review, cross-examination, and full-disclosure in public hearings according to a new consolidated rate case schedule.

Concern is about the public and political impacts of Consolidation are, in my opinion, minor when compared to the proposed gains by the Company. Public relations damage has occurred. This case has a record number of water company customer complaints. The public couldn't be more upset than they are right now.

This party considers "consolidation" to means equalize or make level, all elements involved in efficiently running this business. All rate cases end with a determination of a fair and reasonable rate of return for the Company based on a total revenue stream from the ratepayers. The total revenue requirements must be raised from customers, with fixed (service cost) and variable (volumetric rates) customer charges for different rate classes based on "meter" size.

It is concluded that the following are necessary to most effectively consolidate:

1. Consolidate all "fixed" charges into one Service Charge for each customer category, with one customer category for each meter class, combining residential and commercial rate classes.

2. Consolidate all "variable" or volumetric rates in to one set of rates for each customer category for each meter class. An inclined reverse block rate structure, with adequate number of blocks be developed to ensure all customers can "see" and have an opportunity to reduce consumption by reaching the next lower rate block. At least ten such blocks should be designed; including lower rates for the lowest rate block and significantly higher rates for highest consumption customers in each rate category as a water conservation measure. There should be at least a 100% difference between the lowest and highest rates in each rate category. The lowest rate block should be described for Lower Income customers and publicized as such.

3. Consolidate all miscellaneous "charges and fees" into one schedule for all customers.

4. Consolidate "rules and regulations" into one streamlined, easy to read, document in English and Spanish, available for customers during initial interviews, the web, and in all offices.

5. Consolidate all revenue into one consolidated account (retaining water districts accounting is encouraged) when presenting future rate cases. Revenue will be determined for the consolidated account and not allocated to water districts as a rate making measure.

6. Consider completing the ISO 9000 (Quality Management) qualification process for all divisions with an aim to integrate all company policies and practices, and consider qualifying under ISO 14000 (Environment Management) as a bonus. The additional funds for this are embedded in the "consolidation" incentive part of this rate case to assist this effort.

This party does not support the SBC process recommended by the Company as SBC is NOT understood by ratepayers, sets up additional accounting procedures, and finally this Commission has recently resolved a most challenging and grueling experience in eliminating the SBC by a major electric utility. It was an ugly show that neither I nor anyone else who wants Arizona-American to be successful would wish on their worst enemy. The SBC recommendation is a partial solution when a complete "accounting reset" must be accomplished that will improve Arizona-American. The Test Year plus equipment changes provides the Company the solid foundation and basis <u>right now</u> to start the Consolidation process. Don't wait for later, it maybe too late.

4.4 Recommendations.

I strongly urge the Commission

1. Order this rate case be re-opened to review consolidated financial data for Consolidated Rates and order the Company to consolidate all aspects of these six water districts immediately after the rates being proposed are approved for implementation, and

2. To require the unconsolidated water divisions in a future rate case to fully consolidate with the Company, as a single fully integrated company instead of individual inefficient smaller, uncoordinated, unconsolidated companies, and

3. To Increase the Company's ROI at 1 to 2 percentage points, as a bonus, above what it would normally award in this case to reflect the higher risk and potential additional benefits to help reward the Company reorganize into a better entity and become ISO 9000 certified.

Without #3 above, in my opinion, the energies necessary to respond effectively to these demands may have less importance to upper management as success has smaller reward.

By making bold, objective and obviously beneficial changes <u>now,</u> consolidation will improve the entire company, and all ratepayers will benefit in the long-term.

The present situation is deplorable, almost dysfunctional and is surely not impressive to potential investors, actual shareholders and today's nervous financial community.

A strong, united, and more efficient consolidated operation attracts investors, while continuation of the present situation may continue to repel them.

I support such action as a result of this rate case with periodic status reports to the Commission and parties as to "lessons learned" so early mistakes in the consolidation are transparent and the best corrective action measures, with support by the Staff, as necessary, to make Arizona-American Water Company the best in Arizona and the Western United States.

Exhibit MM-2

Excerpt from the Marshall Magruder Reply Brief of 15 May 2009 in Commission Docket No. W/SW-010303A-09-0227, pages 8 to 14, Section 2, Conservation as a Significant Driver of Water Volumetric Rates"

NOTES CONCERNING THIS EXERPT:

1. It should be noted that this excerpt used revenue and rate data from the First Rate Case that has been modified for this case; therefore, please see the basic testimony for actual numerical values and consider those in this excerpt as representative examples of the important principles herein.
2. The pagination and footnotes were not changed to match the original.

Quote:

Section 2

ISSUE NO. 1

CONSERVATION AS A SIGNIFICANT DRIVER OF WATER VOLUMETRIC RATES

2.1 Summary of Issue No. 1.

The results of rate structure design are revenue-neutral for the Company with obvious "price signals" so ratepayers can actually make behavior changes required to reduce their water demands and conserve water. (Magruder Brief, 12)

A rate structure with frequent price changes provides an opportunity so customers can clearly see "price signals" by the proposed ten-tier inverse rate block structure. It has price-breaks at 4,000-gallon intervals for residential (5/8 & 3/4-inch) and the smallest commercial customers. This stair-stepped, increasing rate process is necessary for every rate category, including commercial categories. A nearby water-short company has much higher rates than Arizona-American, especially for its highest consuming ratepayers. (*Ibid*, 12, footnote 5)

The principle used by this party is *that customers who use the least amount of water pay the lowest rates and conversely for the highest consuming customers, the highest rates*. (*Ibid*, 13)

A significant difference between these extremes is an important feature, to show the strength of price to influence consumption. When consolidation is considered, ten or more rate tiered structure can provide important impacts for *fairness and reasonableness*. (*Ibid*)

The lowest rate tiers, with the lowest rates, provide a "low-income" measure, as the company's rate structure has no minimal or low-income rates. (*Ibid*)

No other Party presented a rate structure with significant differences between the lowest to highest rate differences; however, the Staff Alternative Rate Design for Tubac testimony was closest to this party's. None proposed more than two tiers for commercial customers, which means only one break point exists as a price signal that might already have been exceeded or reaching that demand break point is beyond reason. (*Ibid*)

This issue consists of two parts, the Service Charge and the Consumption (volumetric) rates. The Service Charge passes the overall infrastructure fixed costs to customers and the volumetric rates are based on water consumed. The combination of these two must be rate-neutral so the Company's revenue is a fair rate of return on its investment. (*Ibid*, 13)

2.2 Reply to Post Hearing Opening Briefs.

2.1.1 Proposed Additional "Price Signal" Breakpoints in the Commodity Rate Structures.

Company Brief.

In section "Tubac Rate Design" the Company stated Magruder proposed "many more rate blocks, with severe inverted block rates" for the Tubac Water District. (Company Brief, 52)

Further, Arizona-American opposed the Magruder proposal and "will respond further in its reply brief." (*Ibid*) *[Note: This makes a reply herein rather challenging.]*

RUCO and Briefs.

Neither discussed additional breakpoints in rate structures.

Magruder Reply.

Magruder testimonies determined a rate structure with a reasonable Service Charge plus multiple tiers with clear, obvious, observable and attainable "price break points" so customers reduce their costs by reducing their consumption. (Magruder Brief, 13)

"The Tubac Water District was used throughout as an example; however, all resultant conclusions and recommendations are company-wide, and specifically only for the six water districts in this case." (*Ibid*, 13, underlined original)

The Company missed this point.

The Magruder-proposed ten-tiered rate block process is for use with ALL rate classes and categories for all six water districts. Each rate class (residential, commercial) and category (by consumption) may have different rate block sizes and rates. (*Ibid,* 12-13)

The Company in all its filings failed to demonstrate any understanding of sending price signals as a way to conserve water. In Tubac and the other water districts herein, proposed residential rates have wide variations and wide differences. (*Ibid,* 20)

The Company does not understand the impact of a "price signal" or how to make meaningful and fair rates to conserve critical water in a desert state that is not sustaining its water table.

At least 100% difference should be used to send price signals between multiple tiers and still be revenue neutral. (*Ibid,* 14) Magruder used 400% for residential and small business rates.

This Party's proposed consumption rates are based on lowering the rates for low volume users and raising the rates for high volume water users. To make this effective, one must ensure the customers can "see" the benefits of lower cost with lower water consumption. These "price signals" must be visible and must be attainable or using the inverse rate block structure has no other major purpose. (*Ibid,* 17, emphasis added)

In Table 1, major differences in the proposed residential rate schedules for the example water district are shown. The same type of differences also exists for the other districts. (*Ibid*, 17, and Table 3)

The Magruder proposed rates are clear, obvious and progressively increase with consumption. NO logical rationale has been presented or may exist for the major differences and variances in volumetric rates and rate blocks being proposed. (*Ibid*, 17)

Table 1. Present and Proposed Tubac Residential Rate Commodity Tiers and Rate Schedules

(Per 1,000 gallons)

Commodity Usage Tiers	**Magruder's Proposed Rates**	Present Rates	Company Initial Proposal	Company Final Proposal	Staff Final Proposal	Staff Alternative	RUCO Final Proposal
0 to 3,000 gallons	**$1.50**	$ 1.89	$ 3.78	$ 3.400	$ 2.67	$ 1.90	$ 3.4341
3,001 to 10,000 gallons						$ 3.00	
First 4,000 gallons	**$1.50**	$ 1.89	$ 3.78	$ 3.400	$ 2.67		$ 3.4341
4,001 to 8,000 gallons	**$ 2.00**	$ 2.85	$ 4.85	$ 4.800	$ 4.15		$ 4.4062
8,001 to12, 000 gallons	**$ 2.50**						
10,001 to 20, 000 gallons						$ 4.00	
12,001 to 16,000 gallons	**$ 3.00**						

Table 1. Present and Proposed Tubac Residential Rate Commodity Tiers and Rate Schedules
(Per 1,000 gallons)

Commodity Usage Tiers	**Magruder's Proposed Rates**	Present Rates	Company Initial Proposal	Company Final Proposal	Staff Final Proposal	Staff Alternative	RUCO Final Proposal
16,001 to 20,000 gallons	**$ 3.50**						
20,001 to 24,000 gallons	**$ 4.00**						
24,001 to 28,000 gallons	**$ 4.50**						
28,001 to 32,000 gallons	**$ 5.00**	$ 3.41	$ 4.95	$ 5.500	$ 5.25	$ 6.00	$ 4.4971
36,001 to 40,000 gallons	**$ 5.50**						
40,001 gallons and above	**$ 6.00**						

Numerous price-break points are required for a wide range of consumption. As shown in this table, ten tiers or rate blocks were proposed for ALL rate categories. All customers, residential and commercial, should be able to see and <u>be rewarded</u> with lower water usage costs for conserving water in our state. (*Ibid*, 17, original underlined)

The RUCO and Staff rate structure proposals have weak price signals compared to this party. The Staff's Final (Alternative) Rate Structure 4-Tier, for Tubac is the closest proposed to send price signals. A 5-Tier structure proposed for Paradise Valley has such large water volume differences between steps (up to 60,000 gallons) that inhibit any customer to reduce demand by one step to a lower water rate. (*Ibid*, 20-21)

The Company appears to have not considered water conservation important in rate design.

At least 100% difference between lowest and highest rates should be used to send price signals with multiple tiers and remain revenue neutral. Magruder proposed a 400% difference in residential rates, from $1.50/1000 gallons and to $6.00/1000 gallons. (*Ibid,* 14)

Cost of Service is a fixed charge and is not intended to provide customers a "price signal" to encourage water conservation. The Company, RUCO, and Staff have proposed significant increases in this charge. Table 2 has illustrative data for Tubac, the water district with highest The Tubac Cost of Service. These proposals illustrate these wide variations without explanation.

Further, the Cost of Service rate categories should be based only on size of the interconnection and be identical for Residential and Commercial rate types (with same sized connection). Since the amount of water demand is determined by infrastructure size to serve a customer, there should be NO difference in Cost of Service for residential and commercial customers with the same-size meter connection. (*Ibid,* 15)

The Magruder residential cost of service proposal is for all water districts. (*Ibid,* 14)

Table 2. Proposed Cost of Service Comparisons (Tubac Water District Example).

Customer Type	Rate Category		Present	Company Initial	Company Final	RUCO Final	ACC Staff Alternative	Staff Final	**Magruder Proposal**	Number of Customers
Residential	5/8 & 3/4-in	F1M1A	$ 19.68	$32.50	$ 31.00	$ 29.53	$24.00	$ 32.50	**$25.00**	461
	1-inch	F1M1B	$ 29.63	$ 48.93	$ 46.67	$ 44.45	$72.00	$ 48.63	**$50.00**	41
	2-inch	F1M1D	$97.49	$161.00	$153.57	$146.27	$224.00	$161.00	**$100.00**	3
	3-inch	F1M1E	$115.65	$190.99	$182.17	$173.52	$448.00	$190.99	**$150.00**	1
	Total Residential Customers									489
Commercial	5/8 & 3/4-in	F2M1A	$ 19.68	$ 32.50	$ 31.00	$ 29.53	$24.00	$ 32.50	**$ 25.00**	47
	1-inch	F2M1B	$ 29.63	$ 48.93	$ 46.67	$ 44.45	$72.00	$ 48.63	**$ 50.00**	16
	1½-in	F2M1C	$ 59.26	$ 97.66	$ 93.35	$ 89.91	$140.00	$ 97.86	**$ 75.00**	2
	2-inch	F2M1D	$ 97.49	$161.00	$153.57	$146.27	$224.00	$161.00	**$ 100.00**	10

Table 2. Proposed Cost of Service Comparisons (Tubac Water District Example).

Customer Type	Rate Category		Present	Company Initial	Company Final	RUCO Final	ACC Staff Alternative	Staff Final	**Magruder Proposal**	Number of Customers
	3-inch	F2M1E	$115.65	$190.99	$182.17	$173.52	**$448.00**	$190.99	**$ 150.00**	4
									Total Commercial Customers	78
Growth	5/8 & 3/4-in	F1M1A	Same at Residential F1M1A							10
									Total Customers	549

The Company, RUCO and Staff proposed significant Cost of Service differences for customer types. (*Ibid,* 15)

Significant variations in proposed Cost of Service in this example water district vary for small residential/commercial customers. This pales if compared to 3-inch residential/commercial customer change. The Staff Alternative at $448.00 greatly exceeds the $191.00 charge proposed by the others; therefore, this appears to be an error, along with the 2-inch Cost of Service proposed in the Staff Alternative. (*Ibid*, 15)

Significant differences in the basic Cost of Service exist in each water district to provide the same product, to meet the same standards, using the same engineering and operations staffs, and the same administrative personnel. In addition, proposed increases vary from $0.25 for Mohave (Staff) to $12.82 for Tubac (Company Final). (*Ibid,* pp. 15-25, Table 2)

These unstable and unfair fixed charges must be reviewed for consolidation to accomplish long-term leveling. This will eliminate the peaks and valleys in the existing Cost of Service charges, and will greatly improve the public relations for the Company. These cost swings will continue until consolidation is complete, as all water districts require major capital improvements, at various asynchronous times that make these large cost swings. (*Ibid,* 16)

The six water districts in this case have the average monthly consumption for residential customers shown in Table 3. Also shown are present, Company initial and final proposed costs for the first 1,000 gallons in the First Tier. Except for the Staff's Alternative Rate Design for Tubac, all water district rates use the first 4,000 gallons for the First Tier. (*Ibid*, 18; Table 4, 19)

Table 3 – Average Residential Consumption and Initial Cost Proposals for First, 1,000 Gallons.

Water District	Average Consumer Water Consumption	Proposed Cost per 1000 gallons for First 1,000 Gallons						
		Present	Company Initial	Company Final	RUCO Final	Staff Alternative	Staff Final	Magruder
Sun City West	6,704 gallons	$ 1.35	$ 2.880	$ 2.8734	$ 2.6929	Same as Staff Final	$2.75	$ 1.50
Agua Fria	7,400 gallons	$ 1.53	$ 2.926	$ 2.9260	$ 2.2697		$ 1.84	$ 1.50
Mohave	8,073 gallons	$ 0.85	$ 1.471	$ 1.3190	$ 1.1944		$ 0.88	$ 1.50
Havasu	9,705 gallons	$ 1.68	$ 4.033	$ 3.4390	$ 2.2741		$ 2.26	$ 1.50
Tubac	10,757 gallons	$ 1.89	$ 3.400	$ 3.7800	$ 3.4341	$ 1.90	$ 1.89	$ 1.50
Paradise Valley	20,493 gallons	$ 1.21	$ 1.223	$ 1.2130	$ 1.3119	$1.200-$ 1.050	$ 1.41	$ 1.50
Total for 6 water districts	63,132 gallons	$8.51	$15.9333	$15.5504	$13.1771		$ 11.0400	$9.00
Average for 6 water districts	10,522 gallons	$1.4186	$ 2.6555	$ 2.5917	$ 2.6350		$ 1.8400	$ 1.5000

Table 3 provides the average water consumption per residential customers by water district. In general, Sun City West has the lowest consumption at 6,704 gallons per customer, and increasing approximately 1,000 gallons a month, for Agua Fria, Mohave, Havasu, and Tubac at 11,757 gallons per average customer. These are tightly grouped compared to Paradise Valley with an average customer using almost 20,500 gallons per month. (*Ibid*)

There is no correlation between Average Water Consumption and rate schedules. (*Ibid*, 18)

The proposed rates in Table 3 vary from $0.88 for Mohave (Staff) to $4.033 for Havasu (Company Final). The proposed Tubac rates vary between $1.41 (Staff) and $3.78/1,000 gallons (Company Final). There is no logical reason or has any rationale been provided in this case that would lead to such a wide variance. (*Ibid*, 18 and Table 4, 19)

As shown in Magruder Exhibit MM-6, with progressive tiers, the higher usage rates of $6.00 (or capped at $5.00 for largest commercial due to economics of scale) provide considerably more revenue for the Company than the present revenue from water usage. This "extra" revenue is included to cushion an anticipated impact from customer conservation measures to providing adequate revenue for the Company. (*Ibid*, 18)

Table 4. Sample Tubac Residential Customer Bill Comparing Company and Magruder Total Service Charge including Arsenic Surcharges.

Billing Item	Present	Company Original Proposal			Magruder Proposal		
		Charge	Change			Change	
Cost of Service	$19.68	$32.50	+ $12.82	+ 62.8%	$ 25.00	+ $5.32	+25.4%
Average Usage	$ 49.46	$85.44	+ $35.98	+72.7%	$ 26.50	- $22.96	-53.6%
Total Bill	$ 69.14	$117.94	+$48.80	+ 70.6%	$ 51.50	- $17.64	-24.5%

Average Water Usage = 11,797 gallons

There is also second Cost of Service charge that is indirectly in this rate case planned for Tubac to fund an arsenic treatment plant (Issue 2) with a capital cost of some $2.3 million. The Basic Cost of Service charge could increase from the present $19.68 to Company's proposed $32.50, shown in Table 4. Add the Company's proposed Arsenic Service Charge of $25.98, for a proposed Total Cost of Service of $68.48 per month. It is doubtful if Cost of Service exceeds $68.48 in Arizona for residential customers. As shown in Table 5 in the next section, this total customer cost increase is 347% higher than the present. This is an excessive rate increase, beyond the customary rate increases usually approved by the Commission. The most fair and reasonable way for all water districts to above new, expensive and necessary capital improvements is through rate consolidation to eliminate unintended consequences for the smallest water districts. (*Ibid*, 18 and Table 5, 19)

2.3 Conclusions.

Same as Magruder Opening Brief, paragraph 2.3.

The large variation in the fixed Cost of Service charge must be smoothed out, so the Company can make all prudent capital expenses without causing violent perturbations to its customers. This will lead to a consolidation recommendation later. (*Ibid,* 21)

In summary, the proposed rate structures, other than Staff Alternative and mine, do NOT promote water conservation, in an Active Management Area, where future growth is limited based on the AMA requirements to maintain sustainability in water resources as required by the Santa Cruz Comprehensive Plan, Water Resources Element, where "water supplies are protected and conserved." (*Ibid,* 21)

Water conservation is necessary for a **fair and reasonable** rate structure. The evidence presented remains valid that support this issue. Water conservation and sustainment remain critical State of Arizona objectives and also is an objective of Arizona-American and the Commission. (*Ibid,* 21)

2.4 Recommendations.

To have water conservation as a significant driver of the volumetric water rate, the following are recommended:

1. That the lowest residential rate tiers by credited as a mechanism to provide low-income rates without additional administrative overhead. This should result in defining the first rate tier also as the "low-income" or the survival rate level.
2. That a minimum of ten tiers be used for all residential and commercial rate categories. This will require only an adjustment of "how" the revenue requirements will be distributed to the customer rate categories when higher users pay more, lower user pay less.
3. That all residential and commercial customers, with the same water connection size, have identical Cost of Service and be in the same rate categories that are designed to account for the infrastructure required for service. This should reduce administrative tasks for the Company and make understanding rates easier.
4. That the Commission-determined fair and reasonable company's revenue will be collected and the resultant consumption structure must be revenue-neutral for the Company.
5. That the billing statements make obvious the rate per tier and where that monthly bill lies in the multi-tier structure. This is how the "price-breaks" can be observed and how much less water consumed is necessary to reach then next lower tier.
6. That the smallest residential and commercial rate tiers (at least the first several) identical. This will be advantageous to small businesses that the Company's schedules have shown to typically use less water than the comparable residential rate category.
7. That the fixed Cost of Service variations be minimal and leveled out across all rate payers in each rate category. This will also lead to consolidation of all fixed charges, across all water divisions, to equalize this "fixed" cost.

(*Ibid,* 21-22)

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

KRISTIN K. MAYES, Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

EXHIBIT
Magruder-2
ADMITTED

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT.	**Docket No. W-01303A-09-0343**
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTE WATER DISTRICT.	**Docket Nos. W-01303A-09-0343**

REBUTTAL TESTIMONY OF MARSHALL MAGRUDER TO RATE STRUCTURE AND RATE CONSOLIATION TESTIMONIES AND REBUTTALS AND AN ERRATA TO HIS DIRECT TESTIMONY

14 MAY 2010

Marshall Magruder, a Santa Cruz County Arizona American Water Tubac Water District customer, a Party in Dockets W/SW-010303A-08-0227, approved as an Intervenor in these Rate Design and Consolidation proceedings, submits his rebuttal testimony to the Testimonies and Rebuttals of 3 May 2010.

Rebuttals are included for RUCO's Jodi Jerich, Anthem Golf and County Club's Denise Howe, DMB White Tanks LLC's Norman James, Intervenors Larry Woods and W.R. Hansen, the "Resorts" by John Thornton, Town of Paradise Valley by James Bacon, and Anthem Community by Dan Neidlinger.

An Errata to the Direct Testimony of Marshall Magruder and two additional Exhibits are included.

I certify this filing has been emailed or mailed to the Commission, Company and parties on the Service List.

Respectfully submitted on this 14th day of May 2010

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REBUTTAL TESTIMONY
OF
MARSHALL MAGRUDER
AND REBUTTAL
TO
RATE STRUCTURE AND
RATE CONSOLIDATION TESTIMONIES AND REBUTTALS
WITH
AN ERRATA TO HIS DIRECT TESTIMONY

14 MAY 2010

IN THE MATTER
OF THE APPLICATIONS OF
ARIZONA-AMERICAN WATER COMPANY,
AN ARIZONA CORPORATION,

FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT
(ACC Docket No. W-01303A-09-0343)

AND

FOR THE DETERMINATION OF THE CURRENT FAIL VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WASTEWATER DISTRICT AND ITS SUN CITY WEST WASTE WATER DISTRICT
(ACC Docket No. SW-01303A-09-0343)

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Section 1 – Summary of this Rebuttal

1.1 Scope of this Rebuttal. This rebuttal responds to testimonies submitted on 3 May 2010 by various parties including the Residential Utilities Consumer's Office (RUCO), Anthem Golf and Country Club, DMB White Tank LLC, the Resorts and Town of Paradise Valley, Anthem Community Council, and individual Intervenors Larry Woods and W.R. Hansen.

1.2 Contents of each Rebuttal. Each rebuttal in Section 2 has a short title and a Response statement. Recommendations are also included for some but not all Responses. Some rebuttals did not have any actions necessary as the Response answered the issue raised.

1.3 Recommendations. The following recommendations are in Section 2:

a. From the RUCO Testimony in 2.2, the following are recommended:

Recommendation No. 1.1. It is recommended that AAWC, in its "next" rate case for the consolidated divisions, include an in-depth analysis for any "fair value" differences between the Company's divisions in the 2007 and 2008 test years. If any inequities result from this analysis, then they must be cured in this "next rate case."

Recommendation No. 1.2. From a Rate Consolidation view, it is recommended Commission approval of cost of capital, equity, and debt and operating adjustments for all the districts in the Last Rate Case be included with those districts in the ongoing rate case.

Recommendation No. 5.1. The Commission approve the Magruder Rate Structure if water conservation should be the most significant rate-driver with clear price signals for customers.

Recommendation No. 5.2: It is recommended that, to the maximum degree feasible, that water and sewage water rates, respectively, be consolidated because the public interest requires rates to be fair and reasonable.

Recommendation No. 5.3: It is recommended that the Company to be ordered analyze at its short- and long-term cost of potable water based on its source, in particular, for ground, surface and CAP resources, and AMA applicability. This analysis should be used to develop a water source-oriented Rate Structure with the highest cost for ground water, followed by surface water then the least expensive CAP water.

Recommendation No. 6: It is recommended that the Commission accept the Magruder proposed Rate Consolidations and Structures or the Company's proposed Scenarios One.

Recommendation No. 8: It is recommended that the Commission order bookkeeping and performance records be maintained at both the present Division- and consolidated Company-levels for costs and other performance factors for future filings and prudence reviews.

b. From the Anthem Golf and Country Club Testimony in 2.3, the following is recommended:

Recommendation: It is recommended that the Commission and ADWR develop a coordinated approach towards use of non-potable water for golf course irrigation and, in the interim, a "fair and reasonable" approach be determined during this rate case that provides incentives for water conservation when irrigating golf courses balanced with penalties imposed by ADWR when water consumption limitations are exceeded.

c. From the DMB White Tank Testimony in 2.4, the following is recommended:

Recommendation. It is recommended that the Commission determine "fair and reasonable" rates for various classes of wastewater reuse including effluent, untreated (raw) CAP water, untreated (raw) sewage water, and others, as recommended by Mr. James's Testimony. This may have to be accomplished after this case; however, an interim rate for various water reuse options should be in all sewage water cases including this one. This party refers to others for resolution.

d. From the Resorts Testimony in 2.7, the following are recommended:

Recommendation No. 1: It is recommended that the Commission either exclude "the Resorts" and other such commercial enterprises from the commercial rate structure or establish an interim consolidated Resort Class (such at in Exhibit JST-14) while a study is conducted by the Company to design an appropriate rate structure for these organizations. Also, see Recommendation No. 2 below.

Recommendation No. 2: It is recommended that the Commission order the Company propose a WDSM program specifically targeted for "resorts" whereby a certain percentage decrease in the volumetric charge is allowed based on a verified performance oriented water conservation program. Further, a trend from water consumption rates up to ten years prior should be allowed when determining the starting point for such an initial decrease in volumetric charges.

e. From the Anthem Community Testimony in 2.9, the following are recommended:

Recommendation No. 1: The Commission should consolidate all water and wastewater districts and if not, then de-consolidate the Anthem and Agua Fria Wastewater districts.

Recommendation No. 2. The Commission support consolidation of fees and miscellaneous charges into one schedule and consolidated Rules and Regulations for customer service policies.

Recommendation No. 4. The Commission should require annual reports to include cost reduction benefits attributable to rate consolidation.

Recommendation No. 5: The Commission should consider implementing more rate steps.

1.4 Errata. The Errata to the Magruder Direct Testimony of 3 May 2010 is in Section 3.

Section 2 – Rebuttals to Testimonies by Other Parties.

2.1 Rebuttals.

Q. What testimonies are used in this rebuttal and why where they chosen?

A. The following rebuttals are included herein:

a. RUCO Direct Testimony on Rate Consolidation of Jodi Jerich in 2.2 below.

b. Anthem Golf and Country Club Direct Testimony by Desi Howe in 2.3 below.

c. DMB White Tank, LLC's Direct Testimony by Norman James in 2.4 below.

d. Intervenor Testimony of Larry Woods in 2.5 below.

e. Intervenor Testimony of W. R. Hansen in 2.6 below.

f. Resorts Direct Testimony of John S. Thornton in 2.7 below.

g. Town of Paradise Valley Testimony of James Bacon in 2.8 below.

h. Anthem Community Council Testimony of Dan Neidlinger in 2.9 below.

2.2 Rebuttal to RUCO's Direct Testimony of Jodi Jerich.

In the RUCO filing on 3 May 2010, Direct Testimonies from Jodi A. Jerich and Rodney L. Moore were received. In general, RUCO did not support Rate Consolidation and also did not submit a consolidated rate proposal. The testimony by Rodney Moore did not cover Rate Consolidation.

Ms. Jerich summarized that RUCO's position to oppose Rate Consolidation in this docket for seven numbered and other reasons discussed in the Response(s) and Recommendation(s) below:

(1) <u>Potential legal infirmity to consolidate some systems whose fair value rate base was calculated using a 2007 test year while others are based on a 2008 test year</u>. (Jerich, 3:15-17; 8:17-11:14)

<u>Response No. 1</u>: Multiple Test Years

This is understood by all parties but circumstance to have all 8 water and 5 sewage water companies in one rate case would be required has high cost for the Company, Staff, RUCO and other parties. It is due to this complexity that Rate Consolidation will reduce in future cases. This is equivalent of accomplishing 13 stand-alone water and sewage water rate cases in one proceeding. The difference between the consecutive years of 2007 and 2008 from the sense of significant impacts on the Company appear minimal due to low interest rates, a recession that has slowed growth and system expansion to a minimum, and nearly a constant number of customers in all the districts. If this would cause revenue loss, the Company would have submitted a series of revenue compensation issues related to the two test years involved but none have been presented in these Phase 2 proceedings. There appear to be no or insignificant "fair value" issues.

"RUCO does not believe it is legal to mix test years when asserting the fair value of property." (Jerich, 9:5-6) This is an important issue; however, the Company, Commission and RUCO all

understood this during the Last Rate Case and that the ongoing rate case would include Rate Consolidation proposals. These years are consecutive, use the same company administrative staffs, and any "fair value" differences might be considered as minor due to the ongoing economic conditions in Arizona.

Recommendation No. 1.1. It is recommended that AAWC, in its "next" rate case for the consolidated divisions, include an in-depth analysis for any "fair value" differences between the Company's divisions in the 2007 and 2008 test years. If any inequities result from this analysis, then they must be cured in this next rate case.

Response No. 1.2: Cost differences between two test years.

RUCO indicated that Decision No. 71410 approved weighted cost of capital, equity, and debt in the Last Rate Case and will need to make similar approvals in this case (Jerich 10:6-10). Also, several operating adjustments in Decision No. 71410 for these districts were included

Recommendation No. 1.2. From a Rate Consolidation view, Commission approval of cost of capital, equity, and debt and operating adjustments for all the districts in the Last Rate Case needs to be included with those districts in the ongoing rate case.

(2) "Inability to design consolidated rates that provide a "revenue neutral change to the rate design of all the company's water districts...' (Jerich, 3:19-20, 11:116-12:12)

Response No. 2: Revenue Neutral.

RUCO asserts that Decision No. 71410 requires the Commission to consider "a revenue neutral change to rate design of all the Company's water districts or other appropriate proposals... may be considered." (Jerich, 11:20-21). I read this differently, in that the "revenue neutral change" is the "total revenue" requirement for the Company to operate must remain the same, e.g., "revenue neutral" and not that for each district. Obviously, as pointed out by RUCO, if "revenue neutral" pertained to each district, then rate consolidation would be impossible.

Recommendation No. 2. No action.

(3) Strong opposition against rate consolidation by customers who would have to subsidize rates of ratepayers in other districts. (Jerich, 4:1-2; 12:14-13:3)

Response No. 3: Strong Sun City Opposition.

RUCO indicated that Sun City opposition has been very strong in this case; however, much of these comments are based on misleading and information that has been changed. Reducing the impacts on Sun City Residents by this "one time" Rate Consolidation adjustment was a key factor in determining the proposed Magruder Rate Consolidation and Rate Structures that show an overall

decrease of 4% for Sun City residential customers. (Magruder Table 6 at 24) Unfortunately, this information has not been publicized and if so, such opposition should be greatly decreased.

Recommendation No. 3. No action.

(4) Lack of interest in rate consolidation by customers who would immediately benefit from rate consolidation. (Jerich, 4:4-5; 13:4-20)

Response No. 4: Lack of Interest by Rate Consolidation Beneficiaries.

RUCO comments that only one person during public comments in Anthem supported rate consolidation. Unfortunately, the Company has held public outreach sessions in all districts concerning the issue of Rate Consolidation; however, this issue is a complex concept and hard to understand by the public. In Tubac, all the public comments during the Company's outreach session were supportive of Rate Consolidation. There is no opposition in Tubac other than concerns about impacts by the Tubac Golf and County Club, which are similar to those by similar establishments that this party will address separately.

The Anthem concern about cost for Agua Fria wastewater system is a separate issue that needs further explanation by the Company.

Recommendation No. 4: No action.

(5) Stark distortion of price signals that work against the Commission's important goal of water conservation. (Jerich 4:7-8; 14:1-15:12)

Response No. 5.1: Distortion of Price Signals.

RUCO states, "by distorting the price signals, customers no longer will have the incentive to use their water wisely." (Jerich 14:11-12)

The proposed Magruder Rate Structures have a basic, life-line, allowance of 4,000 gallons for each residential at $0.83/1000 gallons or $3.32 for the First Tier 4,000 gallons plus the monthly service charge. During the last rate case, the Company testified that one person needs about 10 gallons a day for sanitary, health and food purposes, or about 300 gallons per month, thus the "lifeline" should provide the basic needs for over 10 people in a household. It also is a very low rate that eliminates any need for "low income" rates and the cost associated with managing low-income customer-billing services. For water consumed in the Second Tier, the rate is $1.90/1000 gallons; Third Tier at $2.96/1000 gallons, Fourth Tier at $4.50/1000 gallons, and Fifth Tier at $6.00/1000 gallons. These are much higher rates for the higher tier consumers who will definitely see the resultant price signals on their monthly bills. Tiers Two through Five rates are also applicable to commercial ratepayers.

RUCO asserts that 130 customers in Paradise Valley have average monthly water consumption of 130,811 gallons. (Jerich 14:17-19) Under the Magruder proposed Rate Schedule, if

they use ¾-inch service, their Service Charge is $15.00 plus a volumetric charge of $779.16 or a tota $794.19 per month. This should be a very clear "price signal".

The Sun City West average customer at 6,702 gallons would have a Service Charge of $15.00 plus a volumetric charge of $4.76 or a total of $19.76.

The Company's rate study for its Anthem customers shows that customers did notice rate increases, and their analysis showed a 5% reduction in water use 12 months after a rate increase.

Recommendation No. 5.1. The Commission approve the Magruder Rate Structure if water conservation should be the most significant rate-driver with clear price signals for customers.

Response No. 5.2: Different Challenges in different Districts.

RUCO states that different systems have different challenges with water quantity and quality issues (Jerich 14:6-7) This is true but neither water quantity or quality are constants and vary over time, with unexpected or predictable customer cost consequences that can have significant impacts on the cost of service. These issues are everywhere and when a larger number of customers are involved, the impact of these significant costs become "less per ratepayer" due to the larger number of customers. The product is the same for all customers, that is water for consumption or for sewage water disposal. Rate Consolidation is both fair and reasonable.

Q. Should customers who live near a water plant be charged less than those who need more water pipe who live father away?

A. Of course the answer is no.

Q. Should customers in the same district who use pump no. 3 that needs arsenic treatment pay more than his neighbor across the street that is connected to pump no. 1 that does not have any arsenic?

A. No. "Balkanization" of rates by location is absurd, and not fair or reasonable.

Q. Should a customer who lives in a district of 100 customers pay 100 times that for a similar customer in another district of 10,000 customers for installing the same piece of infrastructure required equipment?

A. No. This kind of rate discrimination is neither fair nor reasonable.

Recommendation No. 5.2: It is recommended that, to the maximum degree feasible, that water and sewage water rates, respectively, be consolidated because the public interest requires rates to be fair and reasonable.

Response No. 5.3: Different Water Delivery Challenges.

RUCO indicated that some water districts have different water delivery challenges due to differences between ground, surface and CAP water resources and some are inside ADWR Active Management Areas (AMAs). (Jerich 14:21-14:6) These different water sources are the exact reasons

why a water-conservation Rate Structure is essential is our desert state that can lose CAP water in 2012, has depleting ground water resources, and very limited surface water.

Ground water tables are lowering at up to 4-feet a year, ground water is being over-drafted in all AMAs, and "CAP recharge" is inadequate. ADWR will NOT meet the 2025 sustainability expectations of the 1980 Arizona Water statutes. Only the Santa Cruz AMA, which uses surface water, is sustaining its water resources, as I presented in the Last Rate Case. As quoted in Magruder **Exhibit MM-3**, Herb Guenther, Director of the Department of Water Resources stated

> "[T]he state won't meet a 2025 deadline to reach safe yield – not pumping more than is returned by rainfall and treated effluent – in its groundwater use."[1]

Recommendation No. 5.3: It is recommended that the Company be ordered to analyze at its short- and long-term cost of potable water based on its source, in particular, for ground, surface and CAP resources, and AMA applicability. This analysis should then be used to develop a water source-oriented Rate Structure that will have the highest cost for ground water, followed by surface water then the least expensive CAP water.

(6) Lack of a sufficiently attractive public policy reason to deviate from cost of service rate design. (Jerich 4:10-11)

Response No. 6: Public Policy Reasons

First, the policy of ensuring that rates are both fair and reasonable should dominate the design of the rates that is fair to both the Company and the customer. Serious inequalities now exist between customers in various districts for the same service needs resolution. Only by a one-time rate adjustment, as proposed via Rate Consolidation and a revised Rate Structure, can this be achieved.

Second, of the three proposals, Staff's Scenarios One, AAWC's Scenarios One, and Magruder's, the fairest and most reasonable proposal is this party's; however, acceptance of the Company's Scenarios One can be agreed. All the Staff's proposals are too shallow and are not, in my opinion, fair nor reasonable.

Recommendation No. 6: It is recommended that the Commission accept the Magruder-proposed Rate Consolidations and Rate Structure Design or the Company's proposed Scenarios One.

(7) Existence of certain contractual rates for certain ratepayer classes in certain districts makes rate consolidation complex if no impractical. (Jerich, 4:13-14; 15:14-22)

Response No. 7: Some Rate Categories have Contractual Issues that preclude Consolidation.

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[1] *Arizona Daily Star,* editorial "Lower Priority for Water Won't Do", 13 May 2010, page A9.

There are several rate categories where consolidation is not recommended by the Company, due to contracts with other entities that would require renegotiation in other venues than during this rate case. The Company requested that these few exceptions, in my estimate, impacting less than 5% of the Total Revenue, remain as proposed by the Company.

Recommendation No. 7. No action.

(8) Other RUCO Concerns About Books and Record keeping. (Jerich, 16:1-23)

Response No. 8: Record keeping

RUCO is concerned that rate consolidation "eliminates the need to maintain books for individual systems". (Jerich, 14:2-3) RUCO then recommends that the Commission still order the Company to maintain "system-specific" bookkeeping. (Jerich 14:16-17

Sending price signals to support the Commission's goal of water conservation was a key driver for the Magruder Rate Structure proposals. His proposed Water Demand Side Management program and Water Leak Management Program, for example, would both use "divisions" for monitoring performance.

Recommendation No. 8: It is recommended that the Commission order bookkeeping and performance records be maintained at both the present Division- and consolidated Company-levels for costs and other performance factors for future filings and prudence reviews.

2.3 Rebuttal to Anthem Golf and Country Club Direct Testimony by Desi Howe.

In the Anthem Golf and County Club Direct Testimony filing of 3 May 2010, a Direct Testimony on Rate Structure and Rate Consolidation by Desi Howe was received. In general, this testimony is primarily concerned with the rate charged by the Company for non-potable water used for such irrigation. The present and proposed rate structure does not represent the cost of water or induces water conservation. (Howe 2:8-10)

Response: Cost for Non-Potable Water used for Irrigation.

Golf courses have water use limits set by the Arizona Department of Water Resources (ADWR) with punitive penalties if these limits are exceeded. There should be a coordinated approach by ADWR and the Commission for the use of non-potable water used for irrigation. This is beyond the scope of this rate case but needs resolution for application by all golf courses statewide.

Recommendation: It is recommended that the Commission and ADWR develop a coordinated approach towards use of non-potable water for golf course irrigation and, in the interim, a "fair and reasonable" approach be determined during this rate case that provides incentives for water conservation when irrigating golf courses balanced with penalties imposed by ADWR when water consumption limitations are exceeded.

2.4 Rebuttal to DMB White Tank, LLC's Direct Testimony by Norman James.

In the DMB White Tank, LLC, filing of 3 May 2010, a Direct Testimony on Rate Design by Norman James was received. In general, this testimony is primarily concerned with the rate charged by the Company for effluent. (James 2:9)

Response: Long-Term Non-Potable Water Rates

This is an important issue with long-term impacts for the future of non-potable water rates in our state. By using incentives for use of various classes of wastewater, water conservation can be enhanced and wastewater reuse encouraged with lower rates for effluent than for untreated CAP water (raw). Unfortunately, the opposite appears to have resulted in Commission Decision No. 71410, as untreated CAP water is more expensive to than effluent. (James 6:23-26) The Company and Mr. James appear to be in agreement as to how to proceed on this critical issue.

Recommendation. It is recommended that the Commission determine "fair and reasonable" rates for various classes of wastewater reuse including effluent, untreated (raw) CAP water, untreated (raw) sewage water, and others, as recommended by Mr. James's Testimony. This may have to be accomplished after this case; however, an interim rate for various water reuse options should be in all sewage water cases including this one. This party refers to others for resolution.

2.5 Rebuttal to Testimony of Larry Woods, Intervenor.

The Intervenor filing on 3 May 2010, Testimony from Larry D. Woods, Sun City, Arizona, was received. In general, Mr. Woods opposed water and wastewater Rate Consolidations. He provides a partial list from an EPA-NARDC document titled *Consolidated Water Rates: Issues and Practices in Single-Tariff Pricing,* of September 1999.[2] This referenced table is completed in Table 1 below:

Response No. 1: Beneficial Arguments for Rate Consolidation.

As shown in Table 1, Mr. Woods stated that "only the first four aspects relate to this case" where these "first four" as numbered 1 to 4 in the third column. In the second column are the number (out of 21) survey responses that mentioned an argument. It is important to realize that these four arguments, selected by Mr. Woods, omits or does not list other important benefits from Rate Consolidation and Rate Structure design being proposed in this case. He selected four and listed only 11 of 17 arguments in favor of Consolidation from the referenced document.

In particular, in the Magruder Testimony of 3 May 2010, Tables 1 for Rate Consolidation and Table 3 for Rate Structure Design were presented with a preponderance of rationale for additional benefits than the four deemed "applicable" [in bold] by Mr. Woods for this ongoing rate case. Without

[2] Joint Publication of the U.S. Environmental Protection Agency and the National Association of Regulatory Utility Commissioners, www.epa.gov/safewater/utilities/stptitle.pdf and as Exhibit A to Jodi Jerich Rate Consolidation Testimony of 3 May 2010, Summary, page viii.

repeating my Testimony, Mr. Woods' short list of beneficial arguments is inadequate as all of these arguments can be made to support Rate Consolidation and Rate Structure Designs in this case. He also missed the significant benefit in my Testimony that future rate changes will be smaller and less volatile to accommodate major infrastructure changes that are necessary for the older water districts, such as will exist in the near term for Sun City.

Recommendation No. 1: No action.

Table 1 – Arguments in Favor of Single-Tariff Pricing

Arguments in Favor of Single-Tariff Pricing	See Note	Priority on Woods List
Mitigates rate shock to utility customers	**17**	**1-applicable**
Lowers administrative costs to utilities	**16**	**4-applicable**
Provides incentives for utility regionalization and consolidation	15	5-not applicable
Physical interconnection is not considered a prerequisite	13	Not included
Addresses small-system viability issues	13	8-not applicable
Improves service affordability for customers	12	7-not applicable
Provides ratemaking treatment similar to that for other utilities	**10**	**3-applicable**
Facilitates compliance with drinking water standards	9	9-not applicable
Overall benefits outweigh overall costs	9	Not included
Promotes universal service for utility customers	8	6-not applicable
Lowers administrative cost to the commission	**8**	**2-applicable**
Promotes ratepayer equity on a regional basis	6	Not included
Encourages investment in water supply infrastructure	5	Not included
Promotes regional economic development	3	10-not applicable
Encourages further private involvement in the water sector	2	11-not applicable
Can be consistent with cost-of-service principles	1	Not included
Found to be in the public interest	1	Not included
Total number of survey responses	148	
Note: Represents the number of mentions out of 21 applicable Public Utility Commission survey responses.		

Response No. 2: Negative Arguments for Rate Consolidation.

As shown in Table 2 below, Mr. Woods stated that all of the negative arguments in his list were applicable for this case. He selected 13 of 16 negative arguments from the referenced document. His arguments (Woods 4:7-10) against Rate Consolidation and Rate Structure Design indicate that there will be less incentive to conserve if rates are lowered. The Magruder Rate Structure proposed in his Testimony will either make lots of money for the Company if water conservation is not observed by customers or groups of customers but specifically the much higher price signals will be clear, as shown in the Company's Anthem Report. The proposed Magruder Water Demand Side Management programs with Water Leak Management are to be designed to improve water efficiency and use for all the Company's customers.

It should also be noted that there were a total of 148 responses for Rate Consolidation and only 84 responses against.

Recommendation: No action.

Table 2 – Arguments Against Single-Tariff Pricing

Arguments in Against of Single-Tariff Pricing	See Note	Priority on Woods List
Conflicts with cost-of-service principles	**14**	**6-applicable**
Provides subsidies to high-cost customers	**12**	**1-applicable**
Not acceptable to all affected customers	10	Not included
Considered inappropriate without physical interconnection	**8**	**11-applicable**
Distorts price signals to customers	**7**	**2-applicable**
Fails to account for variations in customer contributions	**6**	**8-applicable**
Justification has not been adequate in a specific case (s)	**6**	**12-applicable**
Discourages efficient water use and conservation	**4**	**3-applicable**
Encourages growth and development in high cost areas	**4**	**4-applicable**
Undermines economic efficiency	**3**	**5-applicable**
Provides unnecessary incentives to utilities	**3**	**9-applicable**
Not acceptable to other agencies or governments	2	Not included
Insufficient statutory or regulatory basis or precedents	**2**	**13-applicable**
Overall costs outweigh overall benefits	2	Not included
Encourages overinvestment in infrastructure	**1**	**7-applicable**
Total number of survey responses	84	
Note: Represents the number of mentions out of 21 applicable Public Utility Commission survey responses.		

2.6 Rebuttal to the Testimony of W. R. Hansen, Intervenor.

The Intervenor filing of Consolidation & Rate Impact from W. R. Hansen, Sun City West, Arizona, was received. In general, Mr. Hansen opposes Rate Consolidations.

Response No. 1: Rate Consolidation Assists some Districts.

Mr. Hansen states that Rate Consolidation "assists some districts in short-term stained circumstances at the expense of hurting others." (Hansen A:14-23) He then quotes from Decision No. 71410 that the Company has stated the rates for Sun City and Mohave

> "would increase significantly, (136% & 37.22%) and that the short term beneficiaries would be Anthem water (-47.74%) and Tubac (-47.13%) and Havasu (-42.90%) with the only largely unaffected area being Paradise Valley." (Hansen A:19-22)

This quote is prior to Consolidation and Rate Structure Design actions in Phase II and prior to the Company providing its model. The Magruder proposal has significantly different results.

	Residential	Commercial
Sun City	**decrease 4%**	**increase 22%**
Sun City West	**decrease 21%**	**decrease 3%**
Agua Fria	**decrease 8%**	**increase 5%**
Anthem	**decrease 5%**	**increase 15%**
Tubac	**decrease 3%**	**decrease 10%**
Mohave	**increase 2%**	**increase 17%**
Havasu	**decrease 8%**	**insignificant**
Paradise Valley	**increase 32%**	**increase 29%**
Total	**Decrease 3%**	**Increase 13%**

Recommendation No. 1: No action.

Response No. 2: Increased levels of Service are not guaranteed.

Mr. Hansen states

> "[T]he increase level of service is not guaranteed where the invested capital of one community is confiscated in order to enhance the service level of another district. Meanwhile, the benefactor district enjoys no gain in service level but is inflicted with a higher rate extracted for the sole purpose of benefiting another district." (Hansen A:27-B:5)

All communities have to invest in their infrastructure and this is not a steady function. It has a high initial startup capital cost, lower initial operational and maintenance costs that increase with age, then re-investment starts with high capital costs. All systems go through this cycle; with peaks and valleys (commonly called rate shock) for major system costs. The Company invests its capital to meet the service requirements and when consolidated, these "peaks and valleys" will be smoother for all customers. There is no "welfare" system involved as the Commission is required to ensure all capital investments are prudent and that infrastructure is both "used and useful" during rate cases.

Recommendation No. 2. No action.

Response No. 3: Incentives for Inefficient or Capital-troubled districts.

Mr. Hansen states

> "[Rate Consolidation] incentives any inefficient or capital-troubled district to seek to join an existing consolidated amalgamation of water districts for the purpose of transferring, or subsequently lessening the burden of its ratepayers while imposing an economic burden on members of the consolidated group. (Hansen B:6-11)

Mr. Hansen seems to forget that there is one company that owns all these water districts and any responsible company (and AAWC has had no negative complaints in this area) will not let any district be inefficient or not prudent is its expenditures. The Company has ownership, as no Districts are owners, but each district is a work element of an integrated company. The Company can't bail out itself.

Recommendation No. 3: No action.

Response No. 4: Trolling for disadvantaged Districts.

Mr. Hansen states

> "[Rate Consolidation] likewise incentives corporate bodies to troll for such disadvantaged districts...recognizing that a utility commission that has initially embraced the rate payer welfare system will subsequently welcome any troubled sojourner." (Hansen B:12-15)

This comment has no validity or basis, especially when considering Tables 1 and 2 in this Rebuttal.

Recommendation No. 4. No action.

Response No. 5: Interconnection for water districts.

Mr. Hansen states

> "[C]onsolidation is usually resonated for the electric & gas utility camps where "interconnection" is more plausible and economically rational. Water district are traditionally independent. To pursue interconnection, as a service benefit, within Arizona American could easily approximate over 892 miles of heavy piping making it astronomical economic implausibility." (Hansen B:16-21)

My Testimony herein and during the Last Rate Case evidence was presented by this party using the Company's witness that no interconnections are necessary for the benefits of consolidation of rates. In my electric company's last rate case, residential and small business rates were consolidated between two "districts" in Santa Cruz and Mohave Counties, obviously not interconnected. For the last half-century small businesses in Nogales paid over 8% higher electric rates compared to those in Mohave County, obviously a violation of "fair and reasonable" rates for identical services without any interconnection.

Recommendation No. 5. No action.

Response No. 6: Lack of Homogeneous Character in 426 water districts.

Mr. Hansen states

> "As one reviews that Water Infrastructure Finance Authority of Arizona's 2008 survey of the states' 426 water districts and 133 wastewater districts, you can quickly focus on the extreme lack of homogenous characteristics among these districts. (Hansen B:22-C:8)

This party concurs with this statement. Obviously, there are maybe by an order of magnitude too many water and wastewater districts to operate efficiently in our State. Only through consolidation will the "mom and pop" water companies be absorbed, run more efficiently, to benefit all citizens. This AAWC case should be the first of a series of consolidations that will make significant improvements, outlined in Table 1 above or in Tables 1 and 3 of my Testimony.

Recommendation No. 6. No action.

Response No. 7: Discrimination in Rates.

Mr. Hansen claims, "that consolidation would constitute "discrimination" against a district adversely impacted in order to benefit another district." (Hansen C8-25) He also quotes from the Arizona Constitution Article 15, Sec. 12,

> "**All charges made for services rendered**, or to be rendered, by public service corporations within this state shall be **just and reasonable**, and **no discrimination in charges, service, or facilities shall be made between persons or places for a like and contemporaneous service**." (Hansen C10-21, emphasis added)

Finally, we are in total agreement on this issue. Since all water is required to be alike and meet the same standard and that service should be the same for all customers, then the same just

and reasonable rates should not discriminate between persons or places. Only by meeting this charge, by having the same rates for the same service, can the Commission meet this explicit Constitutional requirement. Having separate rates for the same service is neither just nor reasonable and is clearly discriminatory and in violation of the state's Constitution. Unfortunately, this is my opinion and only a legal opinion can make this a fact.

Recommendation No. 7: No action.

2.7 Rebuttal to the Resorts Direct Testimony of John Thornton.

The Camelback Inn and Sanctuary on Camelback Mountain, collectively "the Resorts", Direct Testimony by John S. Thornton, filing on Rate Design and Rate Consolidation of 3 May 2010 was received. In general, Mr. Thornton Testimony is concerned about establishment of a Resort Class of service with realistic tiers and breakpoints.

Response No. 1: Rate Structures do not support Commercial tariffs applicable to Resorts.

The existing Commercial service charges, shown in Exhibit JST-2 in the Paradise Valley Water District (PVWD), are proposed by both the Company and Staff consolidated rates to decrease. Further, the commodity charges have four tiers under the Company's proposal but only two tiers by the Staff's. Further, the breakpoints are not near the consumption rates used by the Resorts and result in an approximately 55% increase in water bills while the Company's proposal for PVWD only increased by about 10.1 percent. (Thornton 2:7-3:25; Exhibit JST-2) There are other "resorts" in the total consolidated Company, such as the Anthem Golf and Country Club and the Tubac Golf and County Club, all with similar characteristics. The Resorts and others could be combined into one rate category under Rate Consolidation, with a Rate Structure design applicable for these unique operational facilities. The Resorts recommends that such a rate category either be excluded from the ongoing Rate Consolidation, similar to other excluded rate categories, or a unique Rate Category be developed that would reflect the anticipated 10.1% rate increase anticipated for the PVWD under consolidation proposed by the Company. The Magruder proposal has a higher overall commercial rate increase for PVWD of 29%. (Magruder Testimony Table 6 at 25). The Resorts has proposed a rate tariff for a Resort Class in Exhibit JST-14; however, it only has two tiers when four or five tiers would be necessary to give realistic breakpoints for larger/smaller Resort Class establishments.

Recommendation No. 1: It is recommended that the Commission either exclude "the Resorts" and other such commercial enterprises from the commercial rate structure or establish an interim consolidated Resort Class (such at in Exhibit JST-14) while a study is conducted by the

Company to design an appropriate rate structure for these organizations. Also, see Recommendation No. 2 below.

Response No. 2: Rewards for Water Consumption Decreases.

The Testimony by the Resorts contains impressive results of a serious water conservation programs implemented at the Resorts. (Thornton 12:16-22:9; Exhibits JST-4 to JST-10) Based on this data and prior progress, the Resorts consumption rates should account for the progress already made and documented by the Resorts, such as shown by the declining consumption trend in Exhibit JST-6. This prior performance should be considered when adjusting rates to account for prior effective water conservation programs implemented. It might be realistic for a 25-50% decrease in volumetric rates to be allowed.

Recommendation No. 2: It is recommended that the Commission order the Company propose a WDSM program specifically targeted for "resorts" whereby a certain percentage decrease in the volumetric charge is allowed based on a verified performance-oriented water conservation program. Further, a trend from prior water consumption rates up to ten years prior should be allowed when determining the starting point for such an initial decrease in volumetric charges.

Response No. 3: Cross-Subsidization.

Testimony by the Resorts indicates a concern about cross-subsidization of profits from one water system to support another. (Thornton 9:2-11:21) As summarized in the table on page 11 of his testimony, the commercial consolidated rates in the PVWD increase by about ten times that for the rate increase for residential customers. Under the Magruder rate consolidation proposal, PVWD residential customers could see a 32% rate increase while commercial see a 29% rate increase. (These also are the highest Magruder-proposed Consolidated Rate increases). These are primarily due to the much higher consumption rates in the PVWD than any other and it is the higher rates for higher tiers. If the Magruder proposal is adopted, then the argument by the Resorts on this issue about cross-subsidization within the PVWD becomes mute.

Recommendation No. 3: No action.

2.8 Rebuttal to the Town of Paradise Valley Direct Testimony of James Bacon.

The Town of Paradise Valley filing by James C. Bacon, Town Manager, on water district or Rate Consolidation of 3 May 2010 was received. In general, Mr. Bacon's Testimony opposes district or Rate Consolidation because the "Town does not find a basis to support consolidation based on public policy goals, public safety rationales, comparisons with other regulated utilities, or purported foreseeable benefits." (Bacon 3:5-10)

Response No. 1: Town does not support rate consolidation and/or system interconnection.

Mr. Bacon states:

> "The Town Council does not believe there is any purpose for consolidating or system interconnections the Paradise Valley Water District with other Arizona-American Water Districts at this time." (Bacon 6:11-15)

Throughout these proceedings there have been no plans presented to interconnect any of the Company's water districts, and testimony presented in the Last Rate Case indicated that such interconnections are an immaterial factor when consolidating rates. This party and others have not presented any proposals for Rate Consolidation to interconnect water systems.

Recommendation No. 1: No action.

Response No. 2: Public Policy Goals.

Mr. Bacon states:

> "Public policy goals that can purposely be achieved by rate consolidation, such as increased water conservation by means of "increasing" block tariffs and encouraging a switch from use of groundwater to use of surface water, can be pursued in the individual rate districts and do not need consolidated water districts in order to be advanced." (Bacon 7:1-7)

Water conservation is critical for the State of Arizona, not just for any one water district. The most effective means for reducing water consumption is to ensure that "free" water costs more when used in excessive amounts. The Paradise Valley district has more than twice the consumption of any other district. Since water is common product, there should be no difference in its costs based on location, as required by the Arizona Constitution Article 15 Section 12, *op cite*. With consolidated or common rates for ALL customers, we will see higher monthly bills for those who live in Paradise Valley than in any other water district, based on this higher consumption. Thus, fair and reasonable "rates" may require higher bills for customers in this district. It is the public policy of the Corporation Commission and many other agencies to conserve water in our state, due to limited and ever decreasing water resources, thus having one set of rates for all of this Company's customers is equitable.

Recommendation No. 2. No action.

Response No. 3: APS is a historical example of how rate consolidation should work.

This party has not seen any citations concerning APS in this case concerning rate consolidation; however, the comment that there is no "grid" for water systems is valid for balancing or optimization. Again, there is no push by the Company or in any water district to interconnect any

water districts. Two intervenors, one from Sun City and the other from Sun City West both oppose any interconnection between their systems. (Bacon 7:8-18)

Recommendation No. 3. No action.

Response No. 4: Rate Consolidation benefits the Company and Commission, not Customers.

Mr. Bacon seems to not understand the benefits for customers found in Table 1 of this Rebuttal and in Tables 1 and 3 of the Magruder Testimony. As stated in prior recommendations herein, records and bookkeeping will remain at the district-level so "visibility" can be maintained for local customers. The allocation of total revenue requirements for the Company to customers will be equal, based on rate class and category. Allocation of smaller pockets by district has and will continue to lead to peaks and valleys in rates while consolidation will lead to smoother, less changes in rates that will have less impacts than the significant differences in rates for the same product. Paradise Valley has some of the lowest rates and also uses the highest per person water consumption that depletes this valuable natural resource.

Recommendation No. 4: No action.

Response No. 5: Public Safety Improvements to share costs between districts.

Mr. Bacon seems to believe that only smaller water districts have high capital costs; however, all water districts have similar costs to delivery safe water to their customers. A Company-wide water testing and treatment program, using economies of scale, is vastly superior to establishing a dozen or so independent and non-integrated testing and treatment organizations. All benefit by consolidation by having more to work with that leads to more cooperation and collaboration with mutual customer benefits. This year arsenic is an issue; will pharmaceutical pollution be an issue next year that will require significant capital expenses? In my water district, we were told that we needed a $2,300,000 arsenic treatment plant for our 542 customers (or $4,236 per customer). We first investigated less expensive options (in Bangladesh, there is an arsenic treatment system for less than $2/month/customer) and delayed this cost several years. Next we obtained a low interest loan, with Commission support, from the Arizona Water Infrastructure Finance Agency, then a stimulus grant for $1,000,000. We worked with the Company and found lower construction and equipment costs could be obtained. In the final analysis, we reduced the burden to less than $500,000, as a community effort. We would still do this, even after consolidation, because there is no reason to have anything cost more than it is worth.

In my last electric rate case, after 50-years, I got residential and small business rates consolidated between Santa Cruz and Mohave Counties, obviously not contiguous. Businesses in Nogales now have 8% lower electric rates but both counties finally have the same rates for all rate

classes and categories. An $80 million power plant was recently constructed in Mohave County that will never serve my county but I will pay an equal share. Should I complain? No, because a few years earlier, we added a $20 million gas turbine in Nogales that Mohave County is also paying their equal share. We are planning a $40 million transmission line from Tucson to Nogales, that those in Mohave County will also pay their equal share. Should we all complain about unequal costs? No, as EVERY utility has significant asymmetric costs that can be planned but many, such as a failed or polluted water well, need urgent and costly replacements. I could complain all day about the inequality between Santa Cruz and Mohave Counties, but it is useless since their new cost this year might be mine next year. This "attitude" should also prevail with water customers as it does with other utility customers.

Recommendation No. 5: No action.

Response No. 6: Rate Consolidation Leads to a Loss of Accountability by the Company.

Mr. Bacon states:

> "Rate consolidation can lead to a loss of accountability by Arizona-American over the necessity or merit of making certain capital improvements in each of the water districts. Capital expenditures that may receive a rigorous examination by the ratepayers when made in one water district will not appear to have a substantial rate impact when spread over a much larger rate-payer base; thus leading to a less thorough examination of such capital expenditures." (Bacon 9:10-17)

This comment needs to understand that the Commission reviews all capital expenditures during rate case prudency reviews. Further, each capital expense has to be shown to be "used and useful" during this process. As indicated earlier, records and bookkeeping should remain at the water district level in order to monitor and conduct audits a "connected" system. The size difference between water districts should have no impact or a "less thorough examination" of capital expenses.

Recommendation No. 6: No action.

2.9 Rebuttal to the Anthem Community Direct Testimony of Dan Neidlinger.

The Anthem Community Direct Testimony by Dan L. Neidlinger, filing on Rate Design and Consolidation of 3 May 2010 was received. In general, Mr. Neidlinger Testimony supports Rate Consolidation when compared to Stand-Alone rates.

Response No. 1: Rate Consolidation Benefits ALL water and wastewater districts.

Mr. Neidlinger states:

> "the merits of rate consolidation significantly outweigh any adverse consequences of a rate consolidation process. To achieve the benefits of consolidation, however, all of the Company's water and wastewater districts should be included in the consolidation. The

partial consolidation alternatives presented by Staff do not provide any meaningful improvement over the current stand-alone system." (Neidlinger 5:3-13)

He continues and then recommends that the Anthem and Agua Fria Wastewater districts be de-consolidated if Rate Consolidation as stand-alone districts is not approved.

Recommendation No. 1: The Commission should consolidate all water and wastewater districts and if not, then de-consolidate the Anthem and Agua Fria Wastewater districts.

Response No. 2: Rate Consolidation provides seven Major Benefits.

Mr. Neidlinger states:

"Rate consolidation provides the following major benefits:

1. Lower administrative costs through unified customer accounting and billing system;
2. Reduction in rate cases and associated rate case expenses incurred by the Company, Staff, RUCO, and other intervenors;
3. Elimination of distorted cost allocations among districts in rate filings – those cost imbalances abound in this case as discussed in my direct testimony on revenue requirements;
4. The implementation of standard customer service policies and related service rates and charges:
5. Improved rate stability and elimination of rate shock – an issue confronting Anthem customers in this case;
6. Reduced customer confusion with respect to differing rate schedules under one Company umbrella; and
7. The development and implementation of a targeted and comprehensive water conservation program for all of its systems.

"Mr. Marshall Magruder, an intervenor in this case, lists 22 rate consolidation benefits on Table 1, Page 12 of his early-filed rate design and rate consolidation testimony. His list incorporates many of the benefits listed above as well as others that deserve some consideration." (Neidlinger 5:15-6:4)

There appears to be close agreement with these benefits by Mr. Neidlinger and myself. He also supports Magruder Issue No. 4. "Proposed Consolidation of Fees and Miscellaneous Charges" (Magruder Testimony pages 31:33-33:4) under his fourth point and Magruder Issue No. 5, "Proposed Consolidated Rules and Regulations (Magruder Testimony 33:5-17) under this point as "standard customer service policies".

Recommendation No. 2. The Commission support consolidation of fees and miscellaneous charges into one schedule and consolidated Rules and Regulations for customer service policies.

Response No. 3: The Company supports Rate Consolidation.

Mr. Neidlinger states:

"The direct testimonies of Company witness Thomas Broderick [pages 15 through 19} and Paul G. Townsley (pages 14 through 21) support rate consolidation and discuss in some detail the beneficial effects of consolidation. Mr. Townsley discussed one

additional benefit not listed above that is worthy of comment and support. Consolidation would allow the Company to acquire small water and wastewater systems that are in disrepair and make needed plant improvements without imposing rate shock on their customers." (Neidlinger 6:6-12)

These additional benefits should be considered, especially in light of the over 400 water and over 300 wastewater districts throughout the state of Arizona, many of which are poorly operated and have to be taken over by the Commission.

Recommendation No. 3: No action.

Response No. 4: Company should submit a Cost Reduction Plan.

Mr. Neidlinger states:

"It is incumbent on the Company, in my view, to identify and implement tangible cost reduction benefits attributable to rate consolidation. In that regard, the Commission should require the Company to provide, annually, reports describing the progress on its cost reduction activities in its administrative functions." (Neidlinger 6:14-22)

This is important, and similar to benefits are in Magruder Issue No. 6, Proposed Water Demand Side Management Program and Issue No. 7, Proposed Water Loss Incentives and Disincentives (Magruder Testimony 33:19-34:32)

Recommendation No. 4. The Commission should require annual reports to include cost reduction benefits attributable to rate consolidation.

Response No. 5: Company should use smaller step increases/decreases in its 3-step plan.

Mr. Neidlinger discussed the Rate Design 3-step process in Ms. Heppenstall's Rebuttal Testimony and feels that smaller percentages should be used as "some very large percentage step increases and decreases that I find are undesirable and unacceptable." (Neidlinger 7:8-10) His approach would be to use an additional step that is more than 3, with either constant dollar or percentage changes for each step.

Recommendation No. 5: The Commission should consider implementing more rate steps.

Section 3 – Errata to Marshall Magruder Direct Testimony of 3 May 2010

3.1 Errata.

In order to correct errors, the following changes should be made to the Marshall Magruder Direct Testimony of 3 May 2010.

1. In the Executive Summary, on page 7, lines 9 to 13, the Mohave Water District was erroneously omitted, the Sun City residential rate decrease should have been 4% instead of 3%, and the total for residential and commercial changes omitted, thus this should read as follows:

	Residential	Commercial
Sun City	**decrease 4%**	**increase 22%**
Sun City West	**decrease 21%**	**decrease 3%**
Agua Fria	**decrease 8%**	**increase 5%**
Anthem	**decrease 5%**	**increase 15%**
Tubac	**decrease 3%**	**decrease 10%**
Mohave	**increase 2%**	**increase 17%**
Havasu	**decrease 8%**	**insignificant**
Paradise Valley	**increase 32%**	**increase 29%**
Total	**Decrease 3%**	**Increase 13%**

2. On page 25, Table 6 erroneously omitted the Mohave Water District and the total for residential and commercial changes omitted, thus Table 6 should now read as

Table 6 – Consolidated Revenue Changes from Present Revenue for Residential and Commercial Rate Classes by Water District

Water District	*Residential Revenue*	*Commercial Revenue*
Sun City	**Decrease 4%**	**Increase 22%**
Sun City West	**Decrease 21%**	**Decrease 3%**
Agua Fria	**Decrease 8%**	**Increase 5%**
Anthem	**Decrease 5%**	**Increase 15%**
Tubac	**Decrease 3%**	**Decrease 10%**
Mohave	**Increase 2%**	**Increase 17%**
Havasu	**Decrease 8%**	**Insignificant**
Paradise Valley	**Increase 32%**	**Increase 29%**
Total Change	**Decrease 3%**	**Increase 13%**

Appendix – Magruder Exhibits

Exhibit MM-3.

Arizona Daily Star, editorial, "Lower Priority for Water Won't Do", 13 May 2010, p. A9.

Exhibit MM-4.

Green Valley News & Sun, "No-Irrigation Landscaping is Possible", 25 April 2010, p. C2.

EXHIBIT MM-3

Arizona Daily Star
THURSDAY, MAY 13, 2010 • PAGE A9
To contact the Editorial Board / 520-573-4235 / letters@azstarnet.com

THE ED

SERVING TUCSON SINCE 1877
A LEE ENTERPRISES NEWSPAPER
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Sarah Garrecht Gassen, Editorial Writer Jane See White, Editorial Writer David Fitzsimmons, Editorial Cartoonist

Lower priority for water won't do

OUR VIEW: Closing Tucson's regional Water Resources office will harm area

More disheartening news about Arizona's future: Budget cuts have decimated the state Department of Water Resources, and plans to end overpumping of groundwater won't be completed on deadline.

The department's budget was cut by 58 percent by the GOP-dominated Legislature and Gov. Jan Brewer, the Star's Tony Davis reported on Wednesday. With only 95 of its formerly 225-person staff still employed, it will close its five regional offices, including Tucson's.

If you're thinking, "Oh good. Fewer bureaucrats means fewer impediments to business," think again.

The private sector in Southern Arizona will in fact face more impediments because developers who need permits for water use will be forced to go to Phoenix. Given the much smaller staff to process permits, developers can expect more delays, as well.

Davis quoted a letter written by Sarah Evans, chair of Tucson's water advisory committee, who warned that this would create "a drag on economic development and revitalization of Southern Arizona that will result from inadequate and delayed accessibility."

The department's regulatory efforts also are likely to suffer, Davis reported, so that users may be able to avoid cutting back water use or to slip past the requirement that new developments have a 100-year assured water supply.

Finally, because the Tucson office will be closed, Phoenix officials will be setting water-use rules for Southern Arizona cities, golf courses and businesses.

We believe it is imperative that a state with vast swaths of desert be able to enforce its water rules and, in a reasonable period of time, assure a sustainable water source. Just for starters, if Arizona cannot do these things, businesses aren't going to risk moving here.

The state's massive budget deficits prompted the cuts; Water Resources took the third-largest cut of any state agency.

Paul Senseman, Brewer's spokesman, said the deficits forced Brewer to focus in budgeting on core services — education, health care and prisons.

"I understand how important our Water Resources office is to Southern Arizona," Rep. Vic Williams, R-Tucson, told Davis. "But to put it in front of public safety or the K-12 system, I don't think I'd be willing to do that."

We disagree. There is no question that education, including the state universities, is a vital economic engine. And public health and safety must be a priority as well.

That's why we support Proposition 100, the three-year, 1-cent-per-dollar sales-tax increase that would be funneled into those programs. Please vote "yes" on Tuesday.

But enforceable, sustainable water policies must also be a priority to preserve our state's future.

Arizona's 1980 water law was "the flagship groundwater regulatory law in the country, and we have essentially gutted the system," Steve Weatherspoon, a private water attorney in Tucson, told Davis.

Herb Guenther, director of the Department of Water Resources, said the state won't meet a 2025 deadline to reach safe yield — not pumping more than is returned by rainfall and treated effluent — in its groundwater use. He said there aren't funds to buy water rights owned by farms, which use 74 percent of Arizona's water supplies.

Water planning and regulation of its use should be near the top of Arizona's priorities, not on the chopping block.

C2.

No-irrigation landscaping is possible

GV Gardeners
MARY KIDNOCKER

This is the time that departing winter visitors often ask, "Can my plants survive without being watered until I return?"

The answer depends on a number of factors.

What kind of plants? How much water are they accustomed to? Which direction do they face?

Are they in containers or the ground? Are they newly-planted or established?

Are they in a particularly windy area? Do they receive shade during the day?

These questions can all be answered. There are also a number that cannot be answered.

How hot will it be this summer? How much rain will the monsoon season bring? How low will the summer humidity be?

How many sunny days will there be? How many 100-degree days?

A common solution has been to install a drip irrigation system to handle routine watering, especially when the gardener is absent.

However, there is a trend to move away from this method by beginning to install plants that can survive without automatic watering.

Tucson Landscape Designer Greg Corman is now concentrating on conversion of elaborate water-using gardens into those that require no drip irrigation.

His theory is that in a few short years potable water will not be allowed or available for outdoor watering use, so new plants should be selected to survive with minimal moisture.

Look into the desert and note the variety of plants that grow, flourish, and bloom with only rainfall as a water source.

So is it possible to have a presentable no-drip landscape at home?

One of the biggest challenges is adjusting expectations of how we believe the yard should look.

Without regular irrigation, the yard will resemble the surrounding desert, rather than photographs from a "Home & Garden" type publication.

Do not expect a no-drip garden to always be full of flowers.

Instead, like in the desert, there will be periods of bloom, often coinciding with rainfall; and there will be times of dormancy with little or no color.

How vivid your landscape looks, will depend on the frequency and amount of rainfall plus any hand-watering you choose to do.

With a shovel you can create swales and berms to direct rain water into basins you have made around the plants.

This will slow down runoff and allow the precious rainfall to soak into the ground around the vegetation.

Another trick to no-drip gardening is to start with small plants.

This will give the plant more roots than top growth, thereby making it better able to take in enough water to survive.

Also install plants in early spring or autumn to better avoid immediate drought stress.

Do not ignore the all-important first year after planting.

This is when all plants require periodic watering, especially during the hot, dry summer.

If you will not be here, consider a battery-powered timer set up to temporary above-ground tubing.

This can work until plants become established, after which it can be easily removed.

Plants that best adapt to no irrigation are cacti and succulents.

For example, barrel cactus, saguaro, ocotillo, agave, and prickly pear can be used.

If you don't like thorns, this method of gardening may not be for you.

But remember that cacti are seasonally colorful and prolific bloomers.

Among low-water plants that can flower beautifully are desert marigold, red or yellow chuparosa, desert or pineleaf milkweed, desert zinna, paperflower, verbena and everyone's springtime favorite, Parry's penstemon.

Without a permanent irrigation system, the yard will look a lot like the natural desert.

Go for a drive or a hike, and be sure you would like that look in your landscape.

Check out the potential beauty of native and desert-adapted, low-water-use plants at your local nursery.

Without drip system maintenance, you will save work, inconvenience, and money.

Perhaps most important, think about the water being saved by depending more on rainfall to keep your landscape alive and well. With good planning, it can be done.

Mary Kidnocker is a Master Gardener who lives in Green Valley. Her columns are featured each Sunday.

EXHIBIT MM-4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

MAGRUDER SCENARIOS 1C, 1F AND 1F

EXHIBIT
MAGRUDER-3
ADMITTED

ARIZONA WATER COMPANY CONSOLIDATED RATES MODEL - WATER

Percentage of Consolidated Rates (except Non-Potable and PF) Step 1	
Sun City	78%
SCW	100%
Agua Fria	100%
Anthem	243%
Tubac	150%
Mohave	60%
Havasu	120%
PV	95%

Portion of residential revenue from Customer Charge
0.40

Target 5/8" Customer Charge
14.86

Residential Rates and Blocks

5/8" - 3/4"

Tab color

Customer Charge		$	15.00
First	4,000	$	0.8300
Next	6,000	$	1.9000
Next	10,000	$	2.9600
Next	20,000	$	4.5000
Over	40,000	$	6.0000

1"
Tab Color

Customer Charge		$	25.50
First	4,000	$	0.8300
Next	6,000	$	1.9000
Next	10,000	$	2.9600
Next	20,000	$	4.5000
Over	40,000	$	6.0000

1 1/2"
Tab Color

Customer Charge		$	75.00
First	25,000	$	0.8300
Next	75,000	$	1.9000
Next	100,000	$	2.9600
Next	100,000	$	4.5000
Over	100,000	$	6.0000

2"
Tab Color

Commercial, OPA, Turf Rates and Blocks

5/8" - 3/4"

Tab color

Customer Charge		$	15.00
First		$	0.8300
Next or First	10,000		1.9000
Next	10,000		2.9600
Next	20,000		4.5000
Over	50,000		6.0000

1"
Tab Color

Customer Charge		$	25.50
First		$	0.8300
Next or First	10,000		1.9000
Next	15,000		2.9600
Next	25,000		4.5000
Over	50,000		6.0000

1 1/2"
Tab Color

Customer Charge		$	75.00
First		$	0.8300
Next or First	100,000		1.9000
Next	100,000		2.9600
Next	100,000		4.5000
Over	100,000		6.0000

2"
Tab Color

ARIZONA WATER COMPANY CONSOLIDATED RATES MODEL - WATER

Customer Charge		$	100.00	Customer Charge		$	100.00
First	25,000	$	0.8300	First		$	0.8300
Next	75,000	$	1.9000	Next or First	100,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	100,000	$	4.5000	Next	100,000		4.5000
Over	200,000	$	6.0000	Over	200,000		6.0000

3"				**3"**			
Tab Color				Tab Color			
Customer Charge		$	225.00	Customer Charge		$	225.00
First	50,000	$	0.8300	First		$	0.8300
Next	50,000	$	1.9000	Next or First	100,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	100,000	$	4.5000	Next	100,000		4.5000
Over	200,000	$	6.0000	Over	200,000		6.0000

4"				**4"**			
Tab Color				Tab Color			
Customer Charge		$	375.00	Customer Charge		$	375.00
First	100,000	$	0.8300	First		$	0.8300
Next	100,000	$	1.9000	Next or First	200,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	200,000	$	4.5000	Next	200,000		4.5000
Over	300,000	$	6.0000	Over	300,000		6.0000

6"				**6"**			
Tab Color				Tab Color			
Customer Charge		$	750.00	Customer Charge		$	750.00
First	100,000	$	0.8300	First		$	0.8300
Next	100,000	$	1.9000	Next or First	200,000		1.9000
Next	100,000	$	2.9600	Next	100,000		2.9600
Next	200,000	$	4.5000	Next	200,000		4.5000
Over	400,000	$	6.0000	Over	400,000		6.0000

Apartments Not Consolidated - Present rates in effect.

Non-Potable Rate		
Customer Charge	$	-
All Consumption	$	2.5000

Private Fire Rate

ARIZONA WATER COMPANY CONSOLIDATED RATES MODEL - WATER

2"
Tab Color

Customer Charge $ 10.00

3"
Tab Color

Customer Charge $ 22.50

4"
Tab Color

Customer Charge $ 40.00

6"
Tab Color

Customer Charge $ 90.00

8"
Tab Color

Customer Charge $ 160.00

10"
Tab Color

Customer Charge $ 250.00

12"
Tab Color

Customer Charge $ 360.00

Hydrants

Tab Color

Customer Charge $ 12.00

Water Districts Included in Rate Consolidation

	Included? Yes=1, No=0
Sun City	1
SCW	1
Agua Fria	1
Anthem	1
Tubac	1
Mohave	1
Havasu	1
PV	1

(514)

ARIZONA AMERICAN WATER COMPANY
Summary of Consolidated Water Rates

	Revenue from Consolidated Rates	Target Revenue	Difference
Residential (a)	55,895,800	57,468,802	(1,573,002)
Commercial	14,362,261	12,766,423	1,595,838
OPA (b)	290,552	205,193	85,359
Sale For Resale (c)	297,189	295,157	2,031
Misc- Non-Potable	2,053,233	2,341,241	(288,009)
Private Fire	632,214	454,946	177,268
Total	73,531,248	73,531,762	(514)

(a) Includes Multi-family - rates are not consolidated.
(b) OPA in Aqua Fria (State Prison) and in Mohave consolidated to Commercial rates.
(c) Includes Peoria Public Interruptible in Sun City, PI Surprise and Water Contract in Agua Fria

EXHIBIT
Magruder-4
ADMITTED

Exhibit Magruder-4

Comparisons of Proposals for Residential Customers with 5/8 and 3/4-inch Water and Wastewater Services Provided by Arizona-American Water Company

Table 1 shows the differences between the Company, Staff and Magruder Rate Proposals at the district level for Residential 5/8 and 3/4-inch customers for each of the eight water districts. The Monthly Charge and rate blocks in terms of thousands of gallons and cost per 1000 gallons for three to five Tiers. The First Residential Tier has been called a "Lifeline" tier to satisfy all basic human (sanitation, health, food, etc.) needs for water. The following proposals are included

- Present Rates (light green)
- Company Consolidated Rate Proposals for All Districts and without Sun City (aqua)
- Company Standalone Rates without Rate Consolidation for Sun City and Anthem in this rate case (purple)
- Staff Standalone Rates without Rate Consolidated Rates (tan)
- Staff Rate Consolidated Scenarios from Michlik Testimony (orange)
  - Scenario 1 – all Districts Consolidated (water and wastewater)
  - Scenario 2 – Two groups (SC + SCW) and (all other districts)
  - Scenario 3 – Three groups
    - Sun City and Sun City West
    - Agua Fria and Anthem and Paradise Valley
    - Tubac and Mohave and Havasu
- Magruder Scenario 1C (from Exhibit Magruder-3) (grey)

Table 2 reflects the Percentage Change in Total Revenue for Residential and Commercial customers for each district as a result of consolidation of rates for ALL districts. The Total Revenue percentage is divided three for a three-step implementation and by five for a five-step implementation based on Company's filings.

Table 3 shows the same with Sun City not included in the Consolidated Rates used by the other seven water districts. Mohave used the two groups from Staff Testimony and for Paradise Valley all three 5/8 and 3/4 rate categories are shown.

The new Table 4 shows the actual cost for the "average" and "median" customers in each district. Values in parenthesis "( )" in red reflect lower customer cost than at present, while those with a "+" in navy blue reflect districts with higher rates than at present for the Staff Scenarios #1, #2 and #3.

Table 5 shows the "Change" from the present or other standalone rates based on the data in Table 4.

The new Table 6 shows the Wastewater Rates in dollars for each district and the three Staff Scenarios with "( )" where the rate decreases and "+" where the rate increases. The "average customer usage" is based on the total gallons divided by the number of customers in that rate category and "median customer usage" is for the median or 50th percentile customer with half consuming more and half using less water.

The new Table 7 expressed the changes in Table 6 in percentages, similar to Table 5.

Table 1

Differences between Company (all districts and without Sun City), Staff (Scenarios 1, 2 and 3), and Magruder Rate Proposals at the District Level

5/8 & 3/4 Residential	Proposal	Monthly Charge	First Tier (Lifeline)		Second Tier		Third Tier		Fourth Tier		Fifth Tier	
Sun City	**Present**	**$7.99**	**0-3k**	**$0.719**	**3-10k**	**$1.329**	**10k+**	**$1.792**				
v3, v4	**Company Consol**	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
	Company Standalone	$10.21	0-3k	$0.9183	3-10k	$1.6974	10k+	$2.1611				
	Staff Standalone	$9.00	0-3k	$0.70	3-9k	$1.40	9k+	$2.4518				
Scenario 1	**Staff Consol**	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	**Staff Consol**	$11.00	0-3k	$1.00	3-10k	$2.25	10k	$2.6738				
Scenario 3	**Staff Consol**	$11.00	0-3k	$1.00	3-10k	$2.25	10k	$2.6738				
1C	**Magruder**	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00
Sun City West	**Present**	$14.80	0-4k	$2.41	4-15k	$2.95	15k+	$3.56				
v3, v4	**Company Consol**	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Without SC v4	**Company Consol**	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Staff Standalone	$14.80	0-4k	$2.41	4-15k	$2.95	15k	$3.56				
Scenario 1	**Staff Consol**	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	**Staff Consol**	$11.00	0-3k	$1.00	3-10k	$2.25	10k	$2.6738				
Scenario 3	**Staff Consol**	$11.00	0-3k	$1.00	3-10k	$2.25	10k	$2.6738				
1C	**Magruder**	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00
Agua Fria	**Present**	$13.85	0-4k	$1.824	4-13k	$2.728	13k+	$3.275				
v3, v4	**Company Consol**	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Without SC v4	**Company Consol**	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Staff Standalone	$13.85	0-4k	$4.824	4-13k	$2.728	13k	$3.275				
Scenario 1	**Staff Consol**	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	**Staff Consol**	$16.00	0-3k	$1.00	3-10k	$2.25	10k	$3.6679				
Scenario 3	**Staff Consol**	$18.00	0-3k	$1.00	3-10k	$2.25	10k	$4.1795				
1C	**Magruder**	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00
Anthem	**Present**	$17.53	0-4k	$1.54	4-10k	$2.41	10k+	$3.08				
v3, v4	**Company Consol**	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Without SC v4	**Company Consol**	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Company Standalone	$35.13	0-4k	$3.0859	4-10k	$4.8293	10k+	$6.1719				
	Staff Standalone	$25.00	0-3k	$2.00	3-9k	$5.00	9k+	$7.8670				
Scenario 1	**Staff Consol**	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	**Staff Consol**	$16.00	0-3k	$1.00	3-10k	$2.25	10k	$3.6679				
Scenario 3	**Staff Consol**	$18.00	0-3k	$1.00	3-10k	$2.25	10k	$4.1795				
1C	**Magruder**	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00

Table 1

Differences between Company (all districts and without Sun City), Staff (Scenarios 1, 2 and 3), and Magruder Rates at the District Level (REVISION A)

5/8 & 3/4 esidential	Proposal	Monthly Charge	First Tier (Lifeline)		Second Tier		Third Tier		Fourth Tier		Fifth Tier	
ubac	Present	$24.70	0-3k	$1.90	3-10k	$3.00	10-20k	$4.00	20k+	$6.00		
v3, v4	Company Consol	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Vithout SC v4	Company Consol	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Staff Standalone	$24.70	0-3k	$1.90	3-10k	$3.00	10-20k	$4.00	20k+	$6.00		
Scenario 1	Staff Consol	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	Staff Consol	$16.00	0-3k	$1.00	3-10k	$2.25	10k	$3.6679				
Scenario 3	Staff Consol	$10.50	0-3k	$1.00	3-10k	$1.50	10k	$2.1250				
1C	Magruder	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00
ohave	Present	$9.00	0-4k	$0.885	4-10k	$1.343	10k+	$1.6070				
v3, v4	Company Consol	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Vithout SC v4	Company Consol	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Staff Standalone	$9.00	0-4k	$0.885	4-10k	$1.343	10k+	$1.6070				
Scenario 1	Staff Consol	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	Staff Consol	$16.00	0-3k	$1.00	3-10k	$2.25	10k	$3.6679				
Scenario 3	Staff Consol	$10.50	0-3k	$1.00	3-10k	$1.50	10k	$2.1250				
1C	Magruder	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00
avasu	Present	$23.50	0-4k	$2.34	4-13k	$3.02	13k+	$3.55				
v3, v4	Company Consol	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Vithout SC v4	Company Consol	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Staff Standalone	$23.50	0-4k	$2.34	4-13k	$3.02	13k+	$3.55				
Scenario 1	Staff Consol	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	Staff Consol	$16.00	0-3k	$1.00	3-10k	$2.25	10k	$3.6679				
Scenario 3	Staff Consol	$10.50	0-3k	$1.00	3-10k	$1.50	10k	$2.1250				
1C	Magruder	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00
aradise alley	Present	$25.15	0-5k	$1.05	5-15k	$1.25	15-40k	$2.75	40-80k	$3.00	80k+	$3.2259
v3, v4	Company Consol	$16.97	0-4k	$1.20	4-10k	$2.29	10-35k	$2.79	35-60k	$3.29	60k+	$3.79
Vithout SC v4	Company Consol	$19.95	0-3k	$1.00	3-10k	$2.535	10-25k	$3.035	25-65k	$3.535	65k+	$3.82
	Staff Standalone	$25.15	0-5k	$1.05	5-15k	$1.25	15-40k	$2.75	40-80k	$3.00	80k+	$3.2259
Scenario 1	Staff Consol	$14.00	0-3k	$1.00	3-10k	$2.25	10k	$3.4821				
Scenario 2	Staff Consol	$16.00	0-3k	$1.00	3-10k	$2.25	10k	$3.6679				
Scenario 3	Staff Consol	$18.00	0-3k	$1.00	3-10k	$2.25	10k	$4.1795				
1C	Magruder	$15.00	0-4k	$0.83	4-10k	$1.90	10-20k	$2.96	20-40k	$4.50	60k+	$6.00

Table 2
Change in Revenue used for Consolidated Rates
(Company v3, v4)

District	Total Rate Change (Residential and Commercial)	Percent change a year if over 3 years	Percent change a year if over 5 years
Sun City	Increase by 22%	+ 7.3%	+ 4.4%
Sun City West	0%	0	0
Agua Fria	0%	0	0
Anthem	Decrease by 143%	- 43.3%	- 28.6%
Tubac	Decrease by 50%	- 16.7%	- 10.0%
Mohave	Increase by 60%	+ 20.0%	+ 15.0%
Havasu	Decrease by 20%	+ 6.7%	+ 4.0%
Paradise Valley	Increase by 5%	+ 1.7%	+ 1.2%

Table 3
Consolidated Rates Change in Revenue for Rate Classes
(Company WITHOUT SUN CITY v4)

District	Total Rate Change (Residential and Commercial)	Percent change a year if over 3 years	Percent change a year if over 5 years
Sun City	No change-standalone	No change	No change
Sun City West	Decrease -0.65%	-0.2%	-0.1%
Agua Fria	Increase 2.05%%	+0.7%	+0.4%
Anthem	Decrease by 96.7%	- 32.2%	- 19.3%
Tubac	Decrease by 35.0%	- 10.2%	- 7.0%
Mohave	Increase by 58.6%	+ 19.5%	+ 11.7%
Havasu	Decrease by 14.5%	+ 4.8%	+ 2.9%
Paradise Valley	Increase by 12.8%	+ 4.2%	+ 2.6%

Table 4

Residential 5/8 and 3/4 inch Water RATES (in Dollars) for the Commission Scenarios
where +$ means a higher rate than present and ($) means a lower rate than present.

Water District	Average Usage					Median Usage				
	Monthly Usage (gallons)	Stand-alone Cost	Staff Scenario (in $ per 1.000 gallons)			Monthly Usage (gallons)	Stand-alone Cost	Staff Scenario (in $ per 1.000 gallons)		
			#1	#2	#3			#1	#2	#3
Sun City West	6,702	**$32.41**	($25.33)	($22.33)	($22.33)	6,000	**$30.34**	($23.75)	($20.75)	($20.75)
Sun City										
• Present	7,954	**$16.73**					**$15.46**			
• Company		**$21.37**					**$19.75**			
• Staff		**$18.04**	+$28.15	+$25.15	+$25.15	7,000	**$16.70**	+$26.00	+$23.00	+$23.00
Anthem										
• Present	9,616	**$37.22**					**$33.33**			
• Company		**$74.59**					**$66.79**			
• Staff		**$65.85**	($31.89)	($33.89)	($35.89)	8,000	**$56.00**	($28.25)	($30.25)	($32.25)
Agua Fria	7,679	**$31.18**	($27.53)	($29.53)	+$31.53	6,000	**$26.60**	($23.75)	($25.75)	+$27.75
Havasu	9,796	**$50.36**	($32.29)	($34.29)	($23.69)	5,000	**$35.88**	($21.50)	($23.50(	($16.50)
Mohave										
Bullhead City	8,070	**$18.01**	+$28.41	+$30.41	+$21.11	5,000	**$13.88**	+$21.50	+$23.50	+$16.50
Rio	10,239	**$20.98**	+$33.58	+$35.63	+$24.51	7,000	**$16.57**	+$26.00	+$28.00	+$19.50
Tubac	11,740	**$58.36**	($38.81)	($41.15)	($27.70)	7,000	**$42.40**	($26.00)	($28.00)	($19.50)
Paradise Valley										
General Svc	24,954	**$65.81**	+$84.82	+$89.75	+$99.25	10,000	**$37.66**	($32.75)	($34.75)	($36.75)
P1M1A	20,406	**$54.79**	+$68.98	+$73.02	+$80.24	11,000	**$37.90**	+$36.23	+$38.43	+$40.93
P1M1B	8,545	**$34.83**	($29.48)	($31.48)	($33.48)	8,000	**$34.15**	($28.25)	($30.25)	($32.25)

Table 5

Residential 5/8 and 3/4 inch Water Rate PERCENT RATE CHANGES for the Present and Staff :enarios, *where +% is a rate increase more than present and (%) is a rate decrease compared to the Present Rates*

Water District	Average Water Usage					Median Water Usage				
	Monthly **Avg.** Usage	Stand-alone Change	**Staff Scenario** (in %)			Monthly **Median** Usage	Stand-alone Change	**Staff Scenario** (in %)		
			#1	#2	#3			#1	#2	#3
ı City West	6,702	---	(21.85%)	(31.10%)	(31.10%)	6,000	---	(21.72%)	(31.61%)	(31.61%)
ı City										
resent	7,954	---	+68.26%	+50.33%	+50.33%	7,000	---	+68.17%	+48.77%	+48.77%
ompany		+27.75%	+31.73%	+17.69%	+17.69%		+27.75%	+31.64%	+16.46%	+16.46%
taff		+7.80%	+56.04%	+39.41%	+39.41%		+8.00%	+55.69%	+37.72%	+37.72%
hem										
resent	9,616	---	(14.32%)	(8.97%)	(3.60%)	8,000	---	(15.24%)	(9.24%)	(3.24%)
ompany		+100.39%	(57.19%)	(54.56%)	(51.88%)		+100.39%	(57.70%)	(54.47%)	(51.71%)
taff		+76.89%	(51.57%)	(48.53%)	(45.50%)		+68.02%	(49.55%)	(45.54%	(42.41%)
ıa Fria	7,679	---	(11.72%)	(5.31%)	+1.11%	6,000	---	(10.72%)	(3.20%)	+4.32%
asu	9,796	---	(35.88%)	(31.91%)	(52.95%)	5,000	---	(40.08%)	(34.50%)	(54.01%)
ıave										
ıllhead City	8,070	---	+57.77%	+68.87%	+17.02%	5,000	---	+54.87%	+69.27%	+18.85%
o	10,239		+60.05%	+69.81%	+16.80%	7,000	---	+56.92%	+68.99%	+17.69%
ıac	11,740	---	(33.50%)	29.49%	(52.54%)	7,000	---	(38.68%)	(33.96%)	(54.01%)
adise Valley										
ıeral Svc	24,954	---	+28.89%	+36.38%	+50.82%	10,000	---	(13.04%)	(7.73%)	(2.42%)
M1A	20,406	---	+25.90%	+33.27%	+46.44%	11,000	---	+4.40%	+1.39%	+7.99%
M1B	8,545	---	(15.37%)	(9.63%)	(3.89%)	8,000	---	(17.28%)	(11.42%	(5.56%)

Table 6
Residential 5/8 and 3/4 inch WASTEWATER RATES (in dollars) for the Present, Staff, and Company Scenarios.

Water District	Average/Mean Usage					
	Monthly Usage in Gallons	Stand-alone (Non-Consol-idated)	Staff Scenario (in $)		Company Scenario (in $)	
			#1	#2 (SC+SC+) + All others	v3 All districts	v4 (Sun City standalone)
Sun City West • Present • Company • Staff	NA	**$25.01** **$31.55** **$31.94**	+$32.97	($22.46)	+$34.24	+$50.35
Sun City • Present • Company • Staff	NA	**$13.69** **$19.27** **$18.05**	+$32.97	+$22.46	+$34.24	$19.27 $18.05
Anthem/Agua Fria • Present • Company • Staff	5,632 average	**$47.36** **$86.10** **$76.93**	($32.97)	Not used		
Anthem/Agua Fria • Present • Company • Staff	7,000 median	**$52.12** **$94.76** **$95.62**	($32.97)			
Anthem/Agua Fria (Consolidated)	NA	---	($32.97)	+$66.77	($34.24)	+$50.35
Mohave	NA	**$56.55**	($32.97)	+$66.77	($34.24)	+$50.35

Table 7
Residential 5/8 and 3/4 inch WASTEWATER PERCENT RATE CHANGES for the Present, Staff, and Company Scenarios.

Water District	Average/Mean Usage					
	Monthly Usage in Gallons	Stand-alone (Non-Consol-idated)	Staff Scenario (in %)		Company Scenario (in %)	
			#1	#2 (SC+SCW) + All others	v3 All districts	v4 (Sun City standalone)
Sun City West • Present • Company • Staff	NA	--- +26.15% +27.71%	+31.83% +4.50% +3.22%	(10.96%) (28.81%) (29.68%)	+36.91% +8.53% +89.70%	+101.32% +59.59% +57.64%
Sun City • Present • Company • Staff	NA	--- +27.75% +7.80%	+140.83% +71.09% +82.66%	+64.06% +16.55% +24.43%	+150.11% +77.69% +89.70%	NA +40.76% +31.85%
Anthem/Agua Fria • Present • Company • Staff	5,632 average usage	--- +81.81% +62.45%	(30.38%) (44.83%) (57.14%)	Not used		
Anthem/Agua Fria • Present • Company • Staff	7,000 median usage	--- +81.81% +83.46%	(36.74%) (40.19%) (65.52%)			
Anthem/Agua Fria (Consolidated)	NA	---	(31.02%)	+40.98%	(27.70%)	(6.31%)
Mohave	NA	---	(41.70)%	+18.07%	(39.45%)	(10.95%)

BEFORE THE ARIZONA CORPORATION COMMISSION

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2010 MAY -3 P 3: 44

AZ CORP COMMISSION
DOCKET CONTROL

EXHIBIT
PV-1
ADMITTED

COMMISSIONERS
KRISTIN K. MAYES-Chairman
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLAN AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM WATER DISTRICT AND ITS SUN CITY WATER DISTRICT	)	**DOCKET NO. W-01303A-09-0343**

IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS ANTHEM/AGUA FRIA WATER DISTRICT, ITS SUN CITY WASTEWATER DISTRICT, AND ITS SUN CITY WEST WASTEWATER DISTRICT	)	**DOCKET NO. SW-01303A-09-0343**

DIRECT TESTIMONY
OF
JAMES C. BACON, PARADISE VALLEY TOWN MANAGER,
ON BEHALF OF THE TOWN OF PARADISE VALLEY, ARIZONA

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EXECUTIVE SUMMARY

James C. Bacon testifies that:

The Town of Paradise Valley opposes water district or rate consolidation. The Town does not find a basis to support consolidation based on public policy goals, public safety rationales, comparisons to other regulated utilities, or purported foreseeable benefits. Rate consolidation could lead to a loss of accountability by Arizona-American Water Company over the necessity for future system improvements and provides more benefit to the water company than it does to customers.

I. INTRODUCTION AND QUALIFICATIONS

Q: Please state your name and business address.

A. James Bacon
6401 E. Lincoln Drive
Paradise Valley, AZ 85253

Q. Where are you employed and in what capacity?

A. Town of Paradise Valley
I am the Town Manager

Q. How long have you been employed with the Town of Paradise Valley?

A. 2 years, 4 months

Q. Please describe your educational background and professional experience.

A. I have a bachelor's degree in economics from St. Martin's College and a master's degree in business administration from Seattle University. I have worked at a number of state and local government positions in positions ranging from research and management analyst to city manager, with most of my professional life having been in the position of City or Town Manager in small to middle sized cities. These positions have provided me with experience in the operations of water utilities, both public and private, and the methodologies used to establish appropriate rates for both public and private water utilities. In particular, I was responsible for water related issues, particularly as relates to city and town budget issues, in the following cities:

Puyallup, Washington
Decatur, Illinois
Kent, Ohio
Colorado Springs, Colorado

Q. What are your current responsibilities as the Town Manager?

A. As Town Manager, I provide the overall administrative leadership for the Town necessary for the implementation of Town Council policies, the administration of the organization, and the delivery of services to the community. I also implement the Council's established goals and policies through professional leadership and management practices. Additionally, I administer the Town's contract for fire and emergency medical services and ensure that the Town operations are performed effectively, efficiently, and economically such that Town services are responsive to the needs of the community.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. I have been selected to provide to the Commission the Town Council's position with regard to rate consolidation.

Q. Can you please provide a brief background?

A. During my first month as Town Manager the Arizona American Water Company issued a notice to the customers in its Paradise Valley district that those customers should not drink the potable water supplied by Arizona American due to contamination by trichloroethylene. I spent much time that week handing out drinking water in the Town Hall parking lot and listening to people's concerns regarding Arizona American. Since that time I have become intimately familiar with a number of issues related to the Town's policy concerns not only with the drinkability of the water supplied by Arizona American, but also with its capability to provide fire flow through its distribution system, rates related to the fire flow, and other rate issues in general. I regularly attend meetings of the Town's Water Utility Committee where Arizona American staff has presented information on both the quality of its water supply system and the impact of such changes

on their rates as well, and where the Committee has discussed and recommended to the Town Council that the Town should oppose rate consolidation. I also assisted in making the recommendations to the Committee and the Council on the reasons why the Town should oppose consolidation, including those reasons expressed in my testimony and in Council Resolution No. 1215, which I have appended to my testimony as the Town's formal expression of its position regarding rate consolidation. This same resolution authorizes me to be the witness in this case on behalf of the Town and is attached to my testimony as Exhibit A hereto.

III. RATE CONSOLIDATION

Q. Does the Town Council support the concept of rate consolidation and/or system interconnection? Please describe.

A. No. The Town Council does not believe there is any purpose for consolidating or system interconnecting the Paradise Valley Water District with other Arizona-American Water Districts at this time. The Town believes funding for other water district systems upgrades or infrastructure improvements can be made regardless of consolidation.

Q. Are there any other recommendations that the Town Council would like to make for the PV Water District?

A. Yes. The Town Council would like for the Paradise Valley Water District to remain unconsolidated for its Paradise Valley customers and for an equitable rate design to be established for this District.

Q. Elijah Abinah, Assistant Director of the Utilities Division for the Arizona Corporation Commission, has testified that public policy goals should be a key part

of the criteria analyzed when recommending rate consolidation. What is your response to this?

A. Public policy goals that can purportedly be achieved by rate consolidation, such as increased water conservation by means of multiple "increasing" block tariffs and encouraging a switch from use of groundwater to use of surface water, can be pursued in the individual rate districts and do not need consolidated water districts in order to be advanced.

Q. Arizona Public Service Corporation (APS) has been used by many witnesses as an historical example of how rate consolidation can and should work. Do you believe that electric and water supply utilities are comparable for the purposes of analyzing rate consolidation scenarios?

A. No. Electricity generation and distribution is in no way comparable to treatment and distribution of water. In the case of water, each set of assets is designed to serve a unique entity. Even the treatment varies, depending on the source. There is no "grid" available for balancing load and optimizing generation. Lastly, physically interconnecting the geographically separate facilities of the Arizona-American water districts is not feasible, except perhaps in the Sun City Area, thus any comparison to APS for the purpose of bolstering a proposal for Rate consolidation is flawed.

Q. Do you foresee any business or customer benefits that could result from rate consolidation?

A. No. There is no business logic for nor customer benefit from combining the geographically separate and distinct water districts in the Arizona-American system through some form of rate consolidation. The only real business logic is that rate

1 consolidation leads to simplicity for regulators, but it is difficult to see how this will lead
2 to any benefits for the customers of Arizona-American. Rate consolidation basically
3 centralizes and accumulates the rate bases for all the Arizona-American water districts
4 and makes it more difficult for customers to dissect the information discreet to their
5 locality in order to voice their opinions. At the same time, for those so inclined, it invites
6 residents in one water district, such as Sun City for example, to intervene in rate cases in
7 order to oppose capital investments that are proposed in other districts, such as Tubac or
8 Paradise Valley, pitting some sets of customers against the others. Because Arizona-
9 American's water districts are geographically isolated with completely separate water
10 supplies and customers, rates can be easily determined for each district. One must ask
11 whether rate consolidation is good for the customers; or good only for Arizona-American
12 and the Commission.

13 **Q. Others have testified that in order to help fund public safety improvements larger**
14 **water districts should be consolidated with smaller districts so that the cost of the**
15 **improvements can be shared across all of the Company's water customers. What is**
16 **your response to this?**

17 A. Rate consolidation allegedly may promote public safety by combining smaller troubled
18 water districts with larger ones in order to help "fund" the substantial investments needed
19 to alleviate health or public safety issues in the smaller districts. However, those same
20 improvements can be made regardless of consolidation. The only effect of consolidation
21 is to shift those costs to customers in other districts, including those who may have
22 already paid for similar necessary public safety improvements in their current water
23 district, many of which may have been constructed many years before consolidation. The

customers in districts that had already paid for the same type of public safety improvements needed in a separate district can and should question the fairness of having to pay (again) for the public safety improvements needed in other districts. Similarly, purchasers of homes and businesses that may have made their decision to purchase and develop property within a particular water district based in part on the complete water treatment and distribution system there and the relatively low cost of water supply for that property could object to the shifting of costs from other separate districts to these purchasers—such shifting upsetting their investment backed expectations that were logically and prudently relied upon.

Q. If rate consolidation were to happen, do you believe it could lead to a loss of accountability by Arizona-American? Please explain.

A. Yes. Rate consolidation can lead to a loss of accountability by Arizona-American over the necessity or merit of making certain capital investments in each of the water districts. Capital expenditures that may receive a rigorous examination by the ratepayers when made in one water district will not appear to have a substantial rate impact when spread out over a much larger rate-payer base, thus leading to a less thorough examination of such capital expenditures.

Q. Does this conclude your testimony in this case?

A. Yes.

Respectfully submitted this 3rd day of May, 2010.

Town of Paradise Valley

Andrew M. Miller, Town Attorney
6401 E. Lincoln Drive
Paradise Valley, AZ 85253
Attorney for Town of Paradise Valley

ORIGINAL and thirteen (13) copies of the
Foregoing have been filed with Docket
Control this 3rd day of May, 2010

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Diane Wayland

RESOLUTION NUMBER 1215

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE TOWN OF PARADISE VALLEY, ARIZONA, RECEIVING THE RECOMMENDATIONS OF THE WATER UTILITY COMMITTEE REGARDING PROPOSALS FOR RATE CONSOLIDATION CURRENTLY BEFORE THE ARIZONA CORPORATION COMMISSION IN THE PENDING ARIZONA-AMERICAN WATER COMPANY RATE CASE, DOCKET NO. W-01303A-09-0343; ADOPTING FINDINGS ON THE ISSUE OF RATE CONSOLIDATION; AND AUTHORIZING THE TOWN ATTORNEY TO FILE TESTIMONY AND A COPY OF THIS RESOLUTION IN THE DOCKET FOR THE RATE CASE

BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF PARADISE VALLEY, ARIZONA THAT:

WHEREAS, the Town of Paradise Valley is a direct customer of the Arizona American Water Company ("Arizona American"), located in Arizona American's Paradise Valley Water District ("PV District"), and a considerable majority of the PV District is composed of residents and businesses in the Town of Paradise Valley; and

WHEREAS, the Arizona Corporation Commission ("Commission") requested input from parties to a prior rate case (Commission Docket No. W-01303A-08-0227; the "Prior Rate Case"), including the Town, on a proposal to consolidate the PV Water District with other Arizona American water districts for the purposes of instituting a consolidated water rates structure for the eight Arizona American water districts within the jurisdiction of the Commission (hereinafter "Rate Consolidation"); and

Exhibit A

WHEREAS, the Town Council previously adopted Resolution #1185 which provided direction to the Town's Attorneys on the Town's position on Rate Consolidation in the Prior Rate Case; the Town's position being as follows:

> **"Consolidation of Arizona-American Water Systems** – The Town takes no position on the question of consolidation of Arizona-American Water rate districts raised by Commissioner Mayes in her letter to the parties to the docket dated November 10, 2008. The Town can foresee some benefits and some detriments to the Town's residential and commercial users in the event of a consolidation, but it finds that there are too many variables involved in the determination of whether the Town's water users are in a better or worse position in the event of a consolidation."

WHEREAS, Decision No. 71410 in the Prior Rate Case required that the issue of Rate Consolidation be taken up in the Company's next rate case with a separate docket in which "a revenue-neutral change to rate design" of all of Arizona American's water districts be considered, that separate docket being Case No. W-01303A-09-0343 (the "Current Rate Case"); and

WHEREAS, the Town filed for intervention in Current Rate Case; and intervention was recently granted; and

WHEREAS, the Paradise Valley Water Utility Committee was established by the Town of Paradise Valley Town Council on January 22, 2009 with said Committee to be advisory to the Town Council and to make regular reports and recommendations to the Council based on its research and review of matters related to the Town's three water utility companies; and

WHEREAS, the Water Utility Committee met on April 14, 2010 to discuss and make a recommendation to the Council on a proposal in the Current Rate Case to institute Rate Consolidation; and

WHEREAS, the Water Utility Committee adopted a motion at its April 14, 2010 meeting recommending to the Council that the Town oppose Rate Consolidation at this time and requested that the Town Attorney, based on the input of the members of the Water Utility Committee, prepare a set of reasons why the Town should oppose Rate Consolidation; and

WHEREAS, that the Council discussed Rate Consolidation at its April 8th, 2010 and April 22nd, 2010 Council meetings to obtain background on the arguments for and against Rate Consolidation; and

WHEREAS, the Town Council concurs with the recommendation of the Water Utility Committee that the Town should oppose Rate Consolidation;

NOW THEREFORE, the Town Council directs and authorizes the Town Attorney and Town Manager to file testimony and a copy of this resolution in the docket of the Current Rate Case opposing consolidation of the PV Water district with any other Arizona American water districts, based on the following findings:

1. Public policy goals that can purportedly be achieved by Rate Consolidation, such as increased water conservation by means of multiple "increasing" block tariffs and encouraging a switch from use of groundwater to use of surface water, can be pursued in the individual rate districts and do not need consolidated water districts in order to be advanced.

2. There is no business logic for nor customer benefit from combining the geographically separate and distinct water districts in the Arizona American system through some form of Rate Consolidation. The only real business logic is that Rate Consolidation leads to simplicity for regulators, but it is difficult to see how this will lead to any benefits for the customers of Arizona American. Rate Consolidation basically centralizes and accumulates the rate bases for all the Arizona American water districts and makes it more difficult for customers to dissect the information discreet to their locality in order to voice their opinions. At the same time, for those so inclined, it invites residents in one water district, such as Sun City for example, to intervene in rate cases in order to oppose capital investments that are proposed in other districts, such as

Tubac or Paradise Valley, pitting some sets of customers against the others. Because Arizona American's water districts are geographically isolated with completely separate water supplies and customers, rates can be easily determined for each district. One must ask whether Rate Consolidation is good for the customers; or good only for Arizona American and the Commission.

3. Arizona Public Service Corporation (APS) is consistently used as a historical example and comparable model as to how rate consolidation can and should work. It is not. Electricity generation and distribution is in no way comparable to treatment and distribution of water. In the case of water each set of assets is designed to serve a unique entity. Even the treatment varies, depending on the source. There is no "grid" available for balancing load and optimizing generation. Lastly, physically interconnecting the geographically separate facilities of the Arizona American water districts is not feasible, except perhaps in the Sun City Area, thus any comparison to APS for the purpose of bolstering a proposal for Rate Consolidation is flawed.

4. Rate Consolidation allegedly may promote public safety by combining smaller troubled water districts with larger ones in order to help "fund" the substantial investments needed to alleviate health or public safety issues in the smaller districts. However, those same improvements can be made regardless of consolidation. The only effect of consolidation is to shift those costs to customers in other districts, including those who may have already paid for similar necessary public safety improvements in their current water district, many of which may have been constructed many years before consolidation. The customers in districts that had already paid for the same type of public safety improvements needed in a separate district and should question the fairness of having to pay (again) for the public safety improvements needed in other districts. Similarly, purchasers of homes and businesses that may have made their decision to purchase and develop property within a particular water district based in part on the complete water treatment and distribution system there and the relatively low cost of water supply for that property could object to the shifting of costs from other separate districts to these purchasers—such shifting upsetting their investment backed expectations that were logically and prudently relied upon.

5. Rate Consolidation can lead to a loss of accountability by Arizona American over the necessity or merit of making certain capital investments in each of the water districts. Capital expenditures that may receive a rigorous examination by the ratepayers when made in one water district will not appear to have a substantial rate impact when spread out over a much larger rate-payer base, thus leading to a less thorough examination of such capital expenditures.

The Town Attorney is directed to file a copy of this Resolution in the docket for the Current Rate Case as a statement of the Town's position on Rate Consolidation; and to represent the Town's interests in all future hearings in the Current Rate Case involving the issue of Rate Consolidation consistent with the positions outlined above.

ADOPTED by the Town Council this 22nd day of April, 2010.

Vernon B. Parker, Mayor

ATTEST:

Duncan Miller, Town Clerk

APPROVED AS TO FORM

Andrew M. Miller, Town Attorney

STATE OF ARIZONA)
:ss.
COUNTY OF MARICOPA)

CERTIFICATION

I, Duncan Miller, Town Clerk hereby certify that the foregoing is a full, true and correct copy of Resolution Number 1215 duly and regularly passed and adopted by vote of the Town Council of Paradise Valley at a meeting thereof duly called and held on the 22nd day of April, 2010. That said Resolution appears in the minutes of said meeting, and that the same has not been rescinded or modified and is now in full force and effect.

I further certify that said municipal corporation is duly organized and existing, and has the power to take the action called for by the foregoing Resolution.

Duncan Miller/Town Clerk

EXHIBIT
R-12
ADMITTED

Arizona-American Water Company
11 Year Pension Expense Table (2004 - 2014)

	Actual							Projected			
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
AZ ERISA Pension Cost	$ 198,415	$ 395,939	$ 1,166,799	$ 1,013,709	$ 1,712,512	$ 2,090,643	$ 2,062,641	$ 2,591,280	$ 2,794,240	$ 2,147,600	$ 2,034,320
AZ FAS 87 Pension Cost	$ 801,536	$ 829,028	$ 895,281	$ 880,693	$ 958,949	$ 2,143,740	$ 1,587,097	$ 1,451,400	$ 1,281,480	$ 1,130,440	$ 979,400
Total Service Co. ERISA Cost	$ 802,477	$ 2,246,786	$ 8,346,597	$ 12,062,315	$ 17,524,162	$ 22,106,545	$ 17,692,040	$ 23,947,380	$ 25,823,040	$ 19,847,100	$ 18,800,220
AZ Share	$ 50,012	$ 140,024	$ 520,176	$ 751,746	$ 1,092,139	$ 1,377,722	$ 1,102,602	$ 1,492,446	$ 1,609,341	$ 1,236,909	$ 1,171,665
5 Pending Districts	$ 24,256	$ 67,912	$ 252,285	$ 364,597	$ 529,687	$ 668,195	$ 534,762	$ 723,836	$ 780,530	$ 599,901	$ 568,258
Total Service Co. FAS 87 Cost	$ 6,675,903	$ 6,506,947	$ 11,420,879	$ 10,957,999	$ 10,936,775	$ 20,027,657	$ 14,667,197	$ 13,413,160	$ 11,842,830	$ 10,446,990	$ 9,051,150
AZ Share	$ 416,055	$ 405,525	$ 711,771	$ 682,923	$ 681,601	$ 1,248,162	$ 914,088	$ 835,933	$ 738,068	$ 651,076	$ 564,085
5 Pending Districts	$ 201,787	$ 196,680	$ 345,209	$ 331,218	$ 330,576	$ 605,358	$ 443,332	$ 405,428	$ 357,963	$ 315,772	$ 273,581

*Note: AZ Share of Service Co. pension cost is based on a 6.23% share derived from 2009 Service Co. pro forma workpapers, as reflectd in the Company's position.
5 Pending Districts share reflects a 48.5% allocation of AZ costs, as reflectd in the Company's position.

EXHIBIT
R-13
ADMITTED

ARIZONA-AMERICAN WATER COMPANY

DOCKET NO. W-01303A-09-0343
AND DOCKET NO. SW-01303A-09-0343

RATE DESIGN DIRECT TESTIMONY

OF

RODNEY L. MOORE

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

MAY 3, 2010

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INTRODUCTION

Q. Please state your name, position, employer and address.

A. My name is Rodney L. Moore. I am a Public Utilities Analyst V with the Residential Utility Consumer Office ("RUCO"), located at 1110 West Washington Street, Suite 220, Phoenix, Arizona 85007.

Q. Please state your educational background and qualifications in the utility regulation field.

A. Appendix 1, which is attached to this testimony, describes my educational background and includes a list of the rate case and regulatory matters in which I have participated.

Q. Please state the purpose of your testimony.

A. The purpose of my testimony is to present RUCO's recommended rate design for Arizona-American Water Company ("AAWC" or "Company").

Q. Please summarize your direct testimony.

A. My direct testimony describes RUCO's recommended rate design and presents schedules that demonstrate it will produce RUCO's recommended level of revenue. I have also provided a schedule, which shows the impact of RUCO's recommended rate design on a typical residential customer at various levels of consumption.

To support RUCO's position I am presenting two schedules for each of the five districts, which clearly depict the methodology and calculations used to produce RUCO's recommended rate design.

PROOF OF RECOMMENDED REVENUE

Q. Has RUCO prepared a Schedule presenting proof of your recommended revenue?

A. Yes. Proof that RUCO's recommended rate design will produce the recommended required revenue as illustrated, is presented on the Rate Design Schedule for each of the five systems.

TYPICAL BILL ANALYSIS

Q. Has RUCO prepared a Schedule representing the financial impact of RUCO's recommended rate design on the typical residential customer?

A. Yes. A typical bill analysis for residential 5/8" X 3/4" metered customers with various levels of usage (both average and median) is presented on the Typical Bill Analysis Schedule for each of the five systems.

RATE CONSOLIDATION

Q. Has RUCO reviewed the Company's models to consolidate rates for the Company's water districts throughout the state?

A. Yes, RUCO reviewed the Company's consolidation models to consolidate all AAWC water districts.

Q. Does RUCO support the rate consolidation in this filing?

A. No. RUCO's recommended rate design generates revenues on a system-by-system basis. The rate design displayed on the attached schedules is based on no consolidation or revenue shifting among any of the districts. The monthly basic service fees and commodity charges were developed from the Company's present rate structure and vary only to reflect RUCO's adjustment to the proposed revenue requirement.

RUCO's Director Jodi Jerich, will provide testimony detailing the reasons RUCO opposes rate consolidation in this proceeding.

Q. Will RUCO be providing additional testimony on rate consolidation during this proceeding?

A. Yes. RUCO reserves the right to file testimony on rate consolidation during the surrebuttal phase of the proceeding upon review of the other parties' position on the issue.

PHASED IN RATES

Q. Is there a mechanism available to mitigate the effects of rate shock for RUCO's proposed 74 percent increase to the customers of Anthem Water and the proposed 61 percent increase to the customers of Anthem/Agua Fria Wastewater?

A. Yes. Phased in rates is a mechanism, which could be utilized to mitigate rate shock by spreading the authorized rate increase over several years. However, for phased in rates to be successful and to avoid a whiplash effect on ratepayers the Company would have to forego significant returns while phasing in the increase.

Q. Would RUCO support a phase in of RUCO's recommended rate increase in order to mitigate the effects of rate shock of the stand-alone rates for Anthem Water and Anthem/Agua Fria Wastewater Districts?

A. Yes. RUCO would support phased in rates if the Company were willing to forego the entire authorized return on investment until final phase in takes effect.

Q. What would RUCO recommend as an appropriate phase in period?

A. RUCO recommends a three-year phase in period to mitigate the rate shock on the ratepayers of Anthem Water and Anthem/Agua Fria Wastewater Districts.

Q. Does this conclude your direct testimony?

A. Yes, it does.

APPENDIX 1

Qualifications of Rodney Lane Moore

EDUCATION: Athabasca University
Bachelor's Degree in Business Administration - 1993

EXPERIENCE: Public Utilities Analyst V
Residential Utility Consumer Office
Phoenix, Arizona 85007
May 2001 - Present

My duties include review and analysis of financial records and other documents of regulated utilities for accuracy, completeness, and reasonableness. I am also responsible for the preparation of work papers and Schedules resulting in testimony and/or reports regarding utility applications for increase in rates, financings, and other matters. Extensive use of Microsoft Excel and Word, spreadsheet modeling and financial statement analysis.

Auditor
Arizona Corporation Commission
Phoenix, Arizona 85007
October 1999 - May 2001

My duties include review and analysis of financial records and other documents of regulated utilities for accuracy, completeness, and reasonableness. I am also responsible for the preparation of work papers and Schedules resulting in testimony and/or reports regarding utility applications for increase in rates, financings, and other matters. Extensive use of Microsoft Excel and Word, spreadsheet modeling and financial statement analysis.

RESUME OF RATE CASE AND REGULATORY PARTICIPATION

Utility Company	Docket No.
Rio Verde Utilities, Inc	WS-02156A-00-0321
Black Mountain Gas Company	G-03703A-01-0283
Green Valley Water Company	W-02025A-01-0559
New River Utility Company	W-01737A-01-0662

Utility Company	Docket No.
Dragoon Water Company	W-01917A-01-0851
Roosevelt Lake Resort, Inc.	W-01958A-02-0283
Southwest Gas Company	G-01551A-02-0425
Arizona-American Water Company	W-01303A-02-0867 et al.
Rio Rico Utilities, Inc.	WS-02676A-03-0434
Qwest Corporation	T-01051B-03-0454
Chaparral City Water Company	W-02113A-04-0616
Southwest Gas Company	G-01551A-04-0876
Arizona-American Water Company	W-01303A-05-0405
Far West Water and Sewer Company	WS-03478A-05-0801
Gold Canyon Sewer Company	SW-02519A-06-0015
Arizona-American Water Company	WS-01303A-06-0403
UNS Gas, Inc.	G-04204A-06-0463 et al.
UNS Electric, Inc.	E-04204A-06-0783
Tucson Electric Power Company	E-01933A-07-0402
Southwest Gas Company	G-01551A-07-0504
Arizona Water Company	W-01445A-08-0440
Arizona-American Water Company	W-01303A-08-0227 et al.
Johnson Utilities, LLC	WS-02987A-08-0180
Black Mountain Sewer Corporation	SW-02361A-08-0609
Arizona-American Water Company	W-01303A-09-0343 et al.
Global Water Company	SW-20445A-09-0077 et al.

Utility Company	Docket No.
Bella Vista Water Company, Inc.	W-02465A-09-0414 et al.

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

TABLE OF CONTENTS TO RLM RATE DESIGN SCHEDULES

SCH. NO.	PAGE NO.	TITLE
		Anthem Water District
RLM-RD1 (A)	1 TO 3	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
RLM-RD2 (A)	1	TYPICAL RESIDENTIAL BILL ANALYSIS
		Sun City Water District
RLM-RD1 (SC)	1 TO 3	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
RLM-RD2 (SC)	1	TYPICAL RESIDENTIAL BILL ANALYSIS
		Anthem/Agua Fria Wastewater District
RLM-RD1 (AAF)	1	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
RLM-RD2 (AAF)	1	TYPICAL RESIDENTIAL BILL ANALYSIS
		Sun City Wastewater District
RLM-RD1 (SCW)	1	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
RLM-RD2 (SCW)	1	TYPICAL RESIDENTIAL BILL ANALYSIS
		Sun City West Wastewater District
RLM-RD1 (SC)	1 TO 2	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
RLM-RD2 (SC)	1	TYPICAL RESIDENTIAL BILL ANALYSIS

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS				
1	E1M1A - 5/8" & 3/4"	58,731	$ 30.43	$ 1,787,444	$ 1,787,444
	Commodity Usage (In Thousands Of Gallons)				
2	First Tier - First 4,000 Gals.	217,253	$ 2.6736	$ 580,853	
3	Second Tier - Next 6,000 Gals.	206,092	$ 4.1841	$ 862,309	
4	Third Tier - Over 10,000 Gals.	141,439	$ 5.3473	$ 756,319	
					$ 2,199,482
5	E1M1B - 1"	41,076	$ 74.45	$ 3,057,921	$ 3,057,921
	Commodity Usage (In Thousands Of Gallons)				
6	First Tier - First 4,000 Gals.	152,289	$ 2.6736	$ 407,163	
7	Second Tier - Next 36,000 Gals.	307,881	$ 4.1841	$ 1,288,207	
8	Third Tier - Over 40,000 Gals.	13,395	$ 5.3473	$ 71,626	
					$ 1,766,996
9	E1M1C - 1-1/2"	804	$ 150.02	$ 120,686	$ 120,686
	Commodity Usage (In Thousands Of Gallons)				
10	First Tier - First 109,000 Gals.	9,407	$ 4.1841	$ 39,360	
11	Second Tier - Over 109,000 Gals.	1,504	$ 5.3473	$ 8,042	
					$ 47,402
12	E1M1D - 2"	170	$ 240.11	$ 40,826	$ 40,826
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 185,000 Gals.	16,060	$ 4.1841	$ 67,197	
14	Second Tier - Over 185,000 Gals.	14,455	$ 5.3473	$ 77,296	
					$ 144,492
15	C1M1A - 5/8" & 3/4"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
16	First Tier - First 4,000 Gals.	-	$ -	$ -	
17	Second Tier - Next 9,000 Gals.	-		$ -	
18	Third Tier - Over 13,000 Gals.	-	$ -	$ -	
					$ -
19	C1M1B - 1"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
20	First Tier - First 45,000 Gals.	-	$ -	$ -	
21	Second Tier - Over 45,000 Gals.	-	$ -	$ -	
					$ -
22	Total Residential Customers	100,781			
23	Total Residential Usage (In Thousands Of Gals)	771,894			
24	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 9,165,250

CONTINUED ON THE NEXT PAGE

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	COMMERCIAL CUSTOMERS				
25	E1M2A - 5/8" & 3/4"	-	$ 30.43	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
26	First Tier - First 13,000 Gals.	-	$ 4.1841	$ -	
27	Second Tier - Over 13,000 Gals.	-	$ 5.3473	$ -	
					$ -
28	E1M2B - 1"	46	$ 74.45	$ 3,454	$ 3,454
	Commodity Usage (In Thousands Of Gallons)				
29	First Tier - First 45,000 Gals.	1,844	$ 4.1841	$ 7,715	
30	Second Tier - Over 45,000 Gals.	1,742	$ 5.3473	$ 9,313	
					$ 17,029
31	E1M2C - 1-1/2"	35	$ 150.02	$ 5,296	$ 5,296
	Commodity Usage (In Thousands Of Gallons)				
32	First Tier - First 100,000 Gals.	1,562	$ 4.1841	$ 6,534	
33	Second Tier - Over 100,000 Gals.	266	$ 5.3473	$ 1,422	
					$ 7,957
34	E1M2D - 2"	63	$ 240.11	$ 15,191	$ 15,191
	Commodity Usage (In Thousands Of Gallons)				
35	First Tier - First 150,000 Gals.	7,098	$ 4.1841	$ 29,697	
36	Second Tier - Over 150,000 Gals.	10,493	$ 5.3473	$ 56,112	
					$ 85,808
37	E1M2E - 3"	10	$ 480.53	$ 4,789	$ 4,789
	Commodity Usage (In Thousands Of Gallons)				
38	First Tier - First 300,000 Gals.	312	$ 4.1841	$ 1,305	
39	Second Tier - Over 300,000 Gals.	-	$ 5.3473	$ -	
					$ 1,305
40	E2M1A - 5/8" & 3/4"	291	$ 30.43	$ 8,850	$ 8,850
	Commodity Usage (In Thousands Of Gallons)				
41	First Tier - First 13,000 Gals.	422	$ 4.1841	$ 1,766	
42	Second Tier - Over 13,000 Gals.	1,094	$ 5.3473	$ 5,850	
					$ 7,616
43	E2M1B - 1"	540	$ 74.45	$ 40,186	$ 40,186
	Commodity Usage (In Thousands Of Gallons)				
44	First Tier - First 45,000 Gals.	8,025	$ 4.1841	$ 33,579	
45	Second Tier - Over 45,000 Gals.	8,946	$ 5.3473	$ 47,835	
					$ 81,414
46	E2M1C - 1-1/2"	574	$ 150.02	$ 86,066	$ 86,066
	Commodity Usage (In Thousands Of Gallons)				
47	First Tier - First 100,000 Gals.	22,510	$ 4.1841	$ 94,183	
48	Second Tier - Over 100,000 Gals.	18,079	$ 5.3473	$ 96,675	
					$ 190,859
49	E2M1D - 2"	1,440	$ 240.11	$ 345,723	$ 345,723
	Commodity Usage (In Thousands Of Gallons)				
50	First Tier - First 150,000 Gals.	87,711	$ 4.1841	$ 366,990	
51	Second Tier - Over 150,000 Gals.	50,988	$ 5.3473	$ 272,649	
					$ 639,639

CONTINUED ON THE NEXT PAGE

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
52	E2M1E - 3"	153	$ 480.53	$ 73,505	$ 73,505
	Commodity Usage (In Thousands Of Gallons)				
53	First Tier - First 300,000 Gals.	9,316	$ 4.1841	$ 38,979	
54	Second Tier - Over 300,000 Gals.	8,546	$ 5.3473	$ 45,698	
					$ 84,677
55	Total Commercial Customers	3,152			
56	Total Commercial Usage (In Thousands Of Gals)	238,953			
57	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 1,699,365
	OWU				
58	E7M2 - Anthem Wholesale (Phoenix) OWU	28	$ -	$ -	
59	All Commodity Usage (In Thousands Of Gals)	239,764	$ 0.5202	$ 124,721.92	
60	TOTAL OWU CUSTOMER REVENUE				$ 124,722
	MISCELLANEOUS				
61	D7M1 - Anthem Treatco Portable Irrigation	572	$ -	$ -	$ -
62	All Commodity Usage (In Thousands Of Gals)	480,873	$ 2.4795	$1,192,306.24	
63	D7M2 - Anthem Treatco Non-Potable Irr.	60	$ -	$ -	$ -
64	All Commodity Usage (In Thousands Of Gals)	103,027	$ 2.4795	$ 255,451.51	
65	TOTAL SALE FOR MISCELLANEOUS CUSTOMER REVENUE				$ 1,447,758
	PRIVATE FIRE PROTECTION CUSTOMERS				
66	E6MO4 - 4"	120	$ 146.53	$ 17,617	
67	E6MO8 - 8"	518	$ 219.79	$ 113,750	
68	E6MO6 - 6"	84	$ 221.74	$ 18,626	
69	Commodity Usage (In Thousands Of Gallons)		No Charge		
70	TOTAL PRIVATE FIRE PROTECTION CUSTOMERS REVENUE				$ 149,994
	TOTAL ANTHEM WATER - BILLED REVENUE				
71	TOTAL RESIDENTIAL				$ 9,165,250
72	TOTAL COMMERCIAL				$ 1,699,365
73	TOTAL OWU				$ 124,722
74	TOTAL MISCELLANEOUS				$ 1,447,758
75	TOTAL PRIVATE FIRE				$ 149,994
76	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 12,587,088
77	Company Computation Error - RUCO Adjustment C-1				$ (9,456)
78	Unreconciled Difference vs. Billed Revenues				$ (49,242)
79	**REVISED REVENUE PER BILL COUNT**				$ 12,528,390
80	Other Revenue (Per Company Revised Schedule C-1, Line 3)				$ 272,650
81	**TOTAL REVENUE**				$ 12,801,040
82	**PROPOSED REVENUE PER RUCO**				$ 12,801,040
83	Difference				$ -

TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B) PRESENT	(C) COMPANY PROPOSED	(D) COMPANY PROPOSED	(E) RUCO PROPOSED	(F) RUCO PROPOSED
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 189,834	75.92%	$ 10,578,550	72.81%	$ 9,165,250	72.81%
2	OTHER	60,226	24.08%	3,949,493	27.19%	3,421,838	27.19%
3	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 12,587,088	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 173,588	69.42%	$ 6,451,917	44.41%	$ 5,589,937	44.41%
5	VARIABLE REVENUE	76,473	30.58%	8,076,126	55.59%	6,997,151	55.59%
6	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 12,587,088	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 17.53		$ 35.13		$ 30.43	
	COMMODITY CHARGE						
	PRESENT / PROPOSED						
8	1st Tier - Breakover 4,000 / 1st Tier - Breakover 4,000	$ 1.5400		$ 3.0859		$ 2.6736	
9	2nd Tier - Breakove 10,000 / 2nd Tier - Breakover 10,000	$ 2.4100		$ 4.8293		$ 4.1841	
10	3rd Tier - Over 10,000 / 3rd Tier - Over 10,000	$ 3.0800		$ 6.1719		$ 5.3473	

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 9,616	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
11		2,404	25.00%	$ 21.23	$ 36.86	$ 15.63	73.61%
12		4,808	50.00%	$ 24.93	$ 43.29	$ 18.35	73.61%
13		9,616	100.00%	$ 37.22	$ 64.63	$ 27.40	73.61%
14		14,424	150.00%	$ 61.42	$ 106.63	$ 45.21	73.61%
15		19,232	200.00%	$ 76.22	$ 132.34	$ 56.11	73.61%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 8,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
16		2,000	25.00%	$ 20.61	$ 35.78	$ 15.17	73.61%
17		4,000	50.00%	$ 23.69	$ 41.13	$ 17.44	73.61%
18		8,000	100.00%	$ 33.33	$ 57.87	$ 24.54	73.61%
19		12,000	150.00%	$ 42.97	$ 74.60	$ 31.63	73.61%
20		16,000	200.00%	$ 66.27	$ 115.05	$ 48.78	73.61%

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS				
1	A1M1A - 5/8" & 3/4"	238,843	$ 8.61	$ 2,056,927	$ 2,056,927
	Commodity Usage (In Thousands Of Gallons)				
2	First Tier - First 3,000 Gals.	664,183	$ 0.7753	$ 514,965	
3	Second Tier - Next 7,000 Gals.	871,579	$ 1.4331	$ 1,249,098	
4	Third Tier - Over 10,000 Gals.	363,936	$ 1.8247	$ 664,057	
					$ 2,428,120
5	A1M1B - 1"	4,051	$ 22.10	$ 89,504	$ 89,504
	Commodity Usage (In Thousands Of Gallons)				
6	First Tier - First 43,000 Gals.	53,311	$ 1.4331	$ 76,402	
7	Second Tier - Over 43,000 Gals.	18,890	$ 1.8247	$ 34,468	
					$ 110,870
9	A1M1C - 1-1/2"	15,769	$ 44.18	$ 696,710	$ 696,710
	Commodity Usage (In Thousands Of Gallons)				
10	First Tier - First 98,000 Gals.	923,883	$ 1.4331	$ 1,324,057	
11	Second Tier - Over 98,000 Gals.	131,146	$ 1.8247	$ 239,296	
					$ 1,563,353
12	A1M1D - 2"	5,305	$ 70.69	$ 375,026	$ 375,026
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 164,000 Gals.	373,847	$ 1.4331	$ 535,777	
14	Second Tier - Over 164,000 Gals.	91,297	$ 1.8247	$ 166,585	
					$ 702,362
9	A1M1E - 3"	36	$ 141.40	$ 5,156	$ 5,156
	Commodity Usage (In Thousands Of Gallons)				
10	First Tier - First 342,000 Gals.	7,875	$ 1.4331	$ 11,286	
11	Second Tier - Over 342,000 Gals.	291	$ 1.8247	$ 531	
					$ 11,817
12	A1M1F - 4"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 543,000 Gals.	-	$ -	$ -	
14	Second Tier - Over 543,000 Gals.	-	$ -	$ -	
					$ -
12	A1M1G - 6"	21	$ 441.84	$ 9,441	$ 9,441
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 700,000 Gals.	2,865	$ 1.4331	$ 4,106	
14	Second Tier - Over 700,000 Gals.	-	$ 1.8247	$ -	
					$ 4,106
22	Total Residential Customers	264,025		$ 3,232,764	
23	Total Residential Usage	3,503,103		$ 4,820,628	
24	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 8,053,391
	COMMERCIAL CUSTOMERS				
25	A1M2A - 5/8" & 3/4"	2,742	$ 8.61	$ 23,618	$ 23,618
	Commodity Usage (In Thousands Of Gallons)				
26	First Tier - First 10,000 Gals.	8,592	$ 1.4331	$ 12,313	
27	Second Tier - Over 10,000 Gals.	9,486	$ 1.8247	$ 17,308	

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RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
					$ 29,621
28	A1M2B - 1"	1,743	$ 22.10	$ 38,506	$ 38,506
	Commodity Usage (In Thousands Of Gallons)				
29	First Tier - First 43,000 Gals.	27,788	$ 1.4331	$ 39,824	
30	Second Tier - Over 43,000 Gals.	11,694	$ 1.8247	$ 21,337	
					$ 61,161
31	A1M2C - 1-1/2"	2,295	$ 44.18	$ 101,384	$ 101,384
	Commodity Usage (In Thousands Of Gallons)				
32	First Tier - First 98,000 Gals.	73,696	$ 1.4331	$ 105,617	
33	Second Tier - Over 98,000 Gals.	25,259	$ 1.8247	$ 46,088	
					$ 151,706
34	A1M2D - 2"	2,176	$ 70.69	$ 153,834	$ 153,834
	Commodity Usage (In Thousands Of Gallons)				
35	First Tier - First 164,000 Gals.	164,480	$ 1.4331	$ 235,723	
36	Second Tier - Over 164,000 Gals.	74,532	$ 1.8247	$ 135,995	
					$ 371,718
37	A1M2E - 3"	314	$ 141.40	$ 44,422	$ 44,422
	Commodity Usage (In Thousands Of Gallons)				
38	First Tier - First 342,000 Gals.	37,735	$ 1.4331	$ 54,080	
39	Second Tier - Over 342,000 Gals.	15,491	$ 1.8247	$ 28,265	
					$ 82,345
40	A1M2F - 4"	62	$ 220.92	$ 13,594	$ 13,594
	Commodity Usage (In Thousands Of Gallons)				
41	First Tier - First 543,000 Gals.	25,654	$ 1.4331	$ 36,766	
42	Second Tier - Over 543,000 Gals.	41,901	$ 1.8247	$ 76,455	
					$ 113,221
43	A1M2G - 6"	87	$ 441.84	$ 38,396	$ 38,396
	Commodity Usage (In Thousands Of Gallons)				
44	First Tier - First 700,000 Gals.	53,939	$ 1.4331	$ 77,303	
45	Second Tier - Over 700,000 Gals.	140,428	$ 1.8247	$ 256,232	
					$ 333,535
55	Total Commercial Customers	9,418		$ 413,754	
56	Total Commercial Usage (In Thousands Of Gals)	710,674		$ 1,143,306	
57	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 1,557,060
	OWU				
58	A5M1 - Public Interruptible - Peoria	12	$ 7.44	$ 89	
59	All Commodity Usage (In Thousands Of Gals)	-	$ 1.0599	$ -	
60	TOTAL OWU CUSTOMER REVENUE				$ 89
	MISCELLANEOUS				
61	A7M1D - Irrigation - 2"	24	$ 70.69	$ 1,697	
62	All Commodity Usage (In Thousands Of Gals)	2,005	$ 1.1435	$ 2,293	$ 3,989
61	A7M2 - Irrigation - Raw	12	$ -	$ -	
62	All Commodity Usage (In Thousands Of Gals)	41,373	$ 0.9145	$ 37,835	$ 37,835

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RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
63	B7M2 - Sun City West Irrigation - Raw	1,356	$ -	$ -	
64	All Commodity Usage (In Thousands Of Gals)	176,610	$ 0.9145	$ 161,506	$ 161,506
65	Total Miscellaneous Customers	1,392		$ 1,697	
66	Total Misc. Usage (In Thousands Of Gals)	219,988		$ 201,634	
67	TOTAL SALE FOR MISCELLANEOUS CUSTOMER REVENUE				$ 203,330
	PRIVATE FIRE PROTECTION CUSTOMERS				
68	A6MO3 - 3"	12	$ 12.01	$ 144	
69	A6MO4 - 4"	677	$ 18.58	$ 12,588	
70	A6MO6 - 6"	655	$ 39.05	$ 25,578	
71	A6MO8 - 8"	120	$ 50.99	$ 6,119	
72	A8MI - Private Hydrant - Peoria	756	$ 7.50	$ 5,668	
73	Commodity Usage	-	$ 1.0599	$ -	
74	TOTAL PRIVATE FIRE PROTECTION CUSTOMERS REVENUE				$ 50,096
75	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 9,863,967
	TOTAL SUN CITY WATER - BILLED REVENUE				
76	RESIDENTIAL BILL COUNT				$ 8,053,391
77	RESIDENTIAL MISCELLANEOUS ADJUSTMENT (Per Company Schedule H-2, Line 57)				$ (16,498)
78	COMMERCIAL BILL COUNT				$ 1,557,060
79	COMMERCIAL MISCELLANEOUS ADJUSTMENT (Per Company Schedule H-2, Line 61)				$ (6,160)
80	TOTAL OWU				$ 89
81	MISCELLANEOUS BILL COUNT				$ 203,330
82	MISCELLANEOUS MISCELLANEOUS ADJUSTMENT (Per Company Schedule H-2, Line 76)				$ (86)
83	TOTAL PRIVATE FIRE				$ 50,096
84	**SUBTOTAL REVISED PROPOSED REVENUE PER BILL COUNT**				$ 9,841,223
85	Unreconciled Difference vs. Billed Revenues				$ (3,704)
86	**REVISED REVENUE PER BILL COUNT**				$ 9,837,519
87	Other Revenue (Per Company Schedule C-1, Line 3)				$ 157,898
88	**TOTAL REVENUE**				$ 9,995,417
89	**PROPOSED REVENUE PER RUCO**				$ 9,995,417
90	Difference				$ -

TYPICAL RESIDENTIAL BILL ANALYSIS
SUN CITY WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B) PRESENT	(C) COMPANY PROPOSED	(D) COMPANY PROPOSED	(E) RUCO PROPOSED	(F) RUCO PROPOSED
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 7,481,368	81.61%	$ 9,538,352	81.64%	$ 8,053,391	81.64%
2	OTHER	1,685,887	18.39%	2,144,427	18.36%	1,810,576	18.36%
3	TOTAL	$ 9,167,255	100.00%	$ 11,682,779	100.00%	$ 9,863,967	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 3,436,617	37.49%	$ 4,380,345	37.49%	$ 3,698,399	37.49%
5	VARIABLE REVENUE	5,730,638	62.51%	7,302,434	62.51%	6,165,568	62.51%
6	TOTAL	$ 9,167,255	100.00%	$ 11,682,779	100.00%	$ 9,863,967	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 7.99		$ 10.20		$ 8.61	
	COMMODITY CHARGE						
	PRESENT / PROPOSED						
8	1st Tier - Breakover 3,000 / 1st Tier - Breakover 3,000	$ 0.7190		$ 0.9183		$ 0.7753	
9	2nd Tier - Breakove 10,000 / 2nd Tier - Breakover 10,000	$ 1.3290		$ 1.6974		$ 1.4331	
10	3rd Tier - Over 10,000 / 3rd Tier - Over 10,000	$ 1.6920		$ 2.1611		$ 1.8247	

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 7,954	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
11		1,989	25.00%	$ 9.42	$ 10.15	$ 0.73	7.79%
12		3,977	50.00%	$ 10.85	$ 11.70	$ 0.85	7.80%
13		7,954	100.00%	$ 16.73	$ 18.04	$ 1.31	7.81%
14		11,931	150.00%	$ 26.70	$ 28.79	$ 2.09	7.82%
15		15,908	200.00%	$ 33.43	$ 36.05	$ 2.62	7.83%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 7,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
16		1,750	25.00%	$ 9.25	$ 9.97	$ 0.72	7.79%
17		3,500	50.00%	$ 10.51	$ 11.33	$ 0.82	7.80%
18		7,000	100.00%	$ 15.46	$ 16.67	$ 1.21	7.81%
19		10,500	150.00%	$ 20.11	$ 21.69	$ 1.57	7.82%
20		14,000	200.00%	$ 30.21	$ 32.57	$ 2.36	7.82%

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PRESENT CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E1MS1 - All Residential Customers	156,699	$ 44.80	$ 7,020,243	
2	Volume Charge - First 7,000 Gallons	882,859	$ 5.6161	$ 4,958,253	
	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 11,978,496
	COMMERCIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E2MS1 - Commercial 5/8" Customers	51	$ 44.80	$ 2,283	
2	Volume Charge - First 10,000 Gallons	302	$ 5.6161	$ 1,696	
					$ 3,979
3	E2MS2 - Commercial 3/4" Customers	12	$ 67.20	$ 806	
4	Volume Charge - First 15,000 Gallons		$ 5.6161	$ -	
					$ 806
5	E2MS3 - Commercial 1" Customers	261	$ 89.70	$ 23,376	
6	Volume Charge - First 20,000 Gallons	2,316	$ 5.6161	$ 13,005	
					$ 36,381
7	E2MS4 - Commercial Large Customers	1,583	$ 179.33	$ 283,947	
8	Volume Charge - All Gallons	80,477	$ 5.6161	$ 451,972	
					$ 735,919
9	Total Customer Bills			$ 310,412	
10	Total Customer Charged Usage			$ 466,673	
11	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 777,085
	OWU CUSTOMERS (Usage In Thousands Of Gallons)				
12	E5M2 - Anthem Wholesale (Phoenix)	24		$ -	
13	Volume Charge - All Gallons	231,722	$ 5.1158	$ 1,185,452	
14	TOTAL OWU CUSTOMERS REVENUE				$ 1,185,452
	TOTAL ANTHEM/AGUA FRIA WASTEWATER - BILLED REVENUES				
15	TOTAL RESIDENTIAL				$ 11,978,496
16	TOTAL COMMERCIAL				$ 777,085
17	TOTAL OWU				$ 1,185,452
18	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 13,941,034
19	Unreconciled Difference vs. Billed Revenues				$ (9,736)
20	**REVISED REVENUE PER BILL COUNT**				$ 13,931,298
21	Other Revenue (Per Company Schedule C-1, Line 3)				$ 2,556
22	**TOTAL REVENUE**				$ 13,933,854
23	**PROPOSED REVENUE PER RUCO**				$ 13,933,854
24	Difference				$ -

TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 7,319,228	85.81%	$ 13,494,262	85.92%	$ 11,978,496	85.92%
2	OTHER	1,210,548	14.19%	2,210,878	14.08%	1,962,538	14.08%
3	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 13,941,034	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 4,480,015	52.52%	$ 8,258,281	52.58%	$ 7,330,655	52.58%
5	VARIABLE REVENUE	4,049,761	47.48%	7,446,859	47.42%	6,610,378	47.42%
6	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 13,941,034	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 27.76		$ 50.47		$ 44.80	
	COMMODITY CHARGE						
	PRESENT / PROPOSED						
8	Max Gallons Included 7,000 / Max Gallons Included 7,000	$ 3.48		$ 6.33		$ 5.62	
9		$ -		$ -		$ -	
	RESIDENTIAL BILL COMPARISONS						
	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 5,814	PRESENT MONTHLY COST	PROPOSED MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
10		1,454	25.00%	$ 32.82	$ 52.96	$ 20.15	61.39%
11		2,907	50.00%	$ 37.88	$ 61.13	$ 23.25	61.39%
12		5,814	100.00%	$ 47.99	$ 77.45	$ 29.46	61.39%
13		8,721	150.00%	$ 52.12	$ 84.11	$ 31.99	61.38%
14		11,628	200.00%	$ 52.12	$ 84.11	$ 31.99	61.38%
	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 7,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
15		1,750	25.00%	$ 33.85	$ 54.63	$ 20.78	61.39%
16		3,500	50.00%	$ 39.94	$ 64.46	$ 24.52	61.39%
17		7,000	100.00%	$ 52.12	$ 84.11	$ 31.99	61.38%
18		10,500	150.00%	$ 52.12	$ 84.11	$ 31.99	61.38%
19		14,000	200.00%	$ 52.12	$ 84.11	$ 31.99	61.38%

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PRESENT CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS (Usage In Thousands Of Gallons)				
2	A1S1A - Residential Single 5/8" x 3/4"	232,807	$ 17.76	$ 4,134,735	
3	A1S1B - Residential Single Unit 1"	2,630	$ 44.41	$ 116,796	
4	A1S1C - Residential Single Unit 1-1/2"	20	$ 88.80	$ 1,778	
5	A1S1D - Residential Single Unit =>2"	48	$ 142.08	$ 6,825	
6	A1S1N - Residential S Unit Non Water	1,214	$ 17.76	$ 21,554	
7	A1S2A - Residential M Unit All Water	127,974	$ 17.76	$ 2,272,868	
8	A1S2N - Residential M Unit Non Water	7,626	$ 17.76	$ 135,442	
9	Total Customer Bills	372,319		$ 6,689,999	
11	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 6,689,999
12	**COMMERCIAL CUSTOMERS** (Usage In Thousands Of Gallons)				
14	A2MS2 - Commercial WC	240	$ 5.35	$ 1,283	
16	A2MS4 - Commercial WM	72	$ 9.93	$ 715	
23	A2MSP - Paradise Park I/U	12	$ 8,254.36	$ 99,052	
	Volume Charge - All Usage	30,079	$ 1.7784	$ 53,494	
25	A2S1A - Commercial Single Unit 5/8" x 3/4"	1,690	$ 8.72	$ 14,734	
26	Volume Charge - First 5,000 Gallons	4,054	$ 1.2619	$ 5,116	
27	A2S1B - Commercial Single Unit 1"	1,330	$ 21.81	$ 28,993	
28	Volume Charge - First 12,500 Gallons	10,538	$ 1.2619	$ 13,298	
29	A2S1C - Commercial Single Unit 1 1/2"	1,394	$ 43.60	$ 60,770	
30	Volume Charge - First 25,000 Gallons	24,560	$ 1.2619	$ 30,993	
31	A2S1D - Commercial Single Unit 2"	1,157	$ 69.77	$ 80,734	
32	Volume Charge - First 40,000 Gallons	35,246	$ 1.2619	$ 44,478	
33	A2S1E - Commercial Single Unit > 2"	144	$ 69.77	$ 10,082	
34	Volume Charge - All Gallons	104,554	$ 1.2619	$ 131,941	
37	A2S2A - Commercial Multi Unit 5/8" x 3/4"	59	$ 8.72	$ 518	
38	Volume Charge - First 5,000 Gallons	235	$ 1.2619	$ 297	

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RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PRESENT CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
39	A2S2B - Commercial Multi Unit 1"	24	$ 21.81	$ 516	
40	Volume Charge - First 12,500 Gallons	296	$ 1.2619	$ 374	
41	A2S2C - Commercial Multi Unit 1 1/2"	115	$ 43.60	$ 5,032	
42	Volume Charge - First 25,000 Gallons	2,515	$ 1.2619	$ 3,174	
43	A2S2D - Commercial Multi Unit 2"	211	$ 69.77	$ 14,692	
44	Volume Charge - First 40,000 Gallons	6,741	$ 1.2619	$ 8,507	
45	A2S2E - Commercial Single Unit > 2"	44	$ 69.77	$ 3,084	
46	Volume Charge - All Gallons	75,717	$ 1.2619	$ 95,550	
49	A2S7D - Commercial LU => 2"	49	$ 69.77	$ 3,419	
50	Volume Charge - All Gallons	3,836	$ 1.2619	$ 4,840	
55	Total Customer Bills	6,541		$ 323,624	
56	Total Customer Charged Usage	298,371		$ 392,061	
57	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 715,685
58	**TOTAL SUN CITY WEST WASTEWATER - BILLED REVENUES**				
59	TOTAL RESIDENTIAL				$ 6,689,999
60	COMMERCIAL BILL COUNT				715,685
61	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 7,405,684
62	COMMERCIAL MISCELLANEOUS ADJUSTMENT (Per Company Schedule H-2, Line 104)				55,569
63	**SUBTOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 7,461,253
64	Unreconciled Difference vs. Billed Revenues				$ 124
65	**REVISED REVENUE PER BILL COUNT**				$ 7,461,377
66	Other Revenue (Per Company Schedule C-1, Line 3)				$ 6,411
67	**TOTAL REVENUE**				$ 7,467,788
68	**PROPOSED REVENUE PER RUCO**				$ 7,467,788
69	Difference				$ -

TYPICAL RESIDENTIAL BILL ANALYSIS
SUN CITY WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 4,820,936	88.14%	$ 7,258,642	90.34%	$ 6,689,999	90.34%
2	OTHER	648,634	11.86%	776,518	9.66%	715,685	9.66%
3	TOTAL	$ 5,469,570	100.00%	$ 8,035,159	100.00%	$ 7,405,684	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 5,238,908	95.78%	$ 7,609,773	94.71%	$ 7,013,623	94.71%
5	VARIABLE REVENUE	230,662	4.22%	425,386	5.29%	392,061	5.29%
6	TOTAL	$ 5,469,570	100.00%	$ 8,035,159	100.00%	$ 7,405,684	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 13.69		$ 19.27		$ 17.76	
	COMMODITY CHARGE						
	PRESENT / PROPOSED						
8	Max Gallons Included - Max Gallons Included -	$ -		$ -		$ -	
9							
	RESIDENTIAL BILL COMPARISONS						
	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 0	PRESENT MONTHLY COST	PROPOSED MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
10		-	25.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
11		-	50.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
12		-	100.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
13		-	150.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
14		-	200.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 0	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
15		-	25.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
16		-	50.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
17		-	100.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
18		-	150.00%	$ 13.69	$ 17.76	$ 4.07	29.73%
19		-	200.00%	$ 13.69	$ 17.76	$ 4.07	29.73%

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WEST WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PRESENT CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	B1S1A - Residential Single 5/8" x 3/4"	177,993	$ 28.36	$ 5,047,349	
2	B1S1B - Residential Single Unit 1"	589	$ 70.89	$ 41,742	
3	B1S1C - Residential Single Unit 1-1/2"	-	$ 141.78	$ -	
4	B1S1D - Residential Single Unit =>2"	37	$ 226.85	$ 8,290	
5	B1S1N - Residential S Unit Non Water	157	$ 28.36	$ 4,459	
6	B1S2A - Residential Multi all Units	28,336	$ 28.36	$ 803,532	
7	Total Customer Bills	207,111		$ 5,905,372	
8	Total Customer Charged Usage	-		-	
9	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 5,905,372
10	**COMMERCIAL CUSTOMERS** (Usage In Thousands Of Gallons)				
11	B2MS2 - Commercial WC	2,424	$ 10.67	$ 25,861	
12	B2MS3 - Commercial DW	48	$ 85.57	$ 4,107	
13	B2MS4 - Commercial WM	360	$ 19.95	$ 7,183	
14	B2MS5 - Commercial WR	12	$ 41.82	$ 502	
15	B2S1A - Commercial Single Unit 5/8" x 3/4"	253	$ 16.17	$ 4,091	
16	Volume Charge - First 5,000 Gallons	956	$ 2.3837	$ 2,280	
17	B2S1B - Commercial Single Unit 1"	336	$ 40.42	$ 13,588	
18	Volume Charge - First 12,500 Gallons	2,951	$ 2.3837	$ 7,035	
19	B2S1C - Commercial Single Unit 1 1/2"	567	$ 80.85	$ 45,875	
20	Volume Charge - First 25,000 Gallons	9,717	$ 2.3837	$ 23,163	
21	B2S1D - Commercial Single Unit 2"	1,052	$ 129.36	$ 136,104	
22	Volume Charge - First 40,000 Gallons	26,882	$ 2.3837	$ 64,078	
23	B2S1E - Commercial Single Unit > 2"	23	$ 129.36	$ 2,975	
24	Volume Charge - All Gallons	16,947	$ 2.3837	$ 40,396	
25	B2S1N - Commercial Single Unit No Water	469	$ 129.36	$ 60,681	
26	Volume Charge - Per Unit	-	$ -	$ -	

CONTINUED ON NEXT PAGE

RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
SUN CITY WEST WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PRESENT CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
27	B2S2A - Commercial Multi Unit 5/8" x 3/4"	-	$ 16.17	$ -	
28	Volume Charge - First 5,000 Gallons	-	$ 2.3837	$ -	
29	B2S2B - Commercial Multi Unit 1"	24	$ 40.42	$ 970	
30	Volume Charge - First 12,500 Gallons	297	$ 2.3837	$ 709	
31	B2S2C - Commercial Multi Unit 1 1/2"	24	$ 80.85	$ 1,940	
32	Volume Charge - First 25,000 Gallons	360	$ 2.3837	$ 858	
33	B2S2D - Commercial Multi Unit 2"	48	$ 129.36	$ 6,209	
34	Volume Charge - First 40,000 Gallons	1,920	$ 2.3837	$ 4,577	
35	B2S2E - Commercial Single Unit > 2"	15	$ 129.36	$ 1,940	
36	Volume Charge - All Gallons	6,130	$ 2.3837	$ 14,612	
37	B2S7D - Commercial Single Unit LU => 2"	36	$ 129.36	$ 4,657	
38	Volume Charge - All Gallons	18,401	$ 2.3837	$ 43,863	
39	Total Customer Bills	5,692		$ 316,684	
40	Total Customer Charged Usage	84,562		$ 201,571	
41	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 518,256
42	**TOTAL SUN CITY WEST WASTEWATER - BILLED REVENUES**				
43	TOTAL RESIDENTIAL				$ 5,905,372
44	TOTAL COMMERCIAL				$ 518,256
45	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 6,423,628
46	*Unreconciled Difference vs. Billed Revenues*				$ (5,762)
47	**REVISED REVENUE PER BILL COUNT**				$ 6,417,866
48	Other Revenue (Per Company Revised Schedule C-1, Line 3)				$ 1,321
49	**TOTAL REVENUE**				$ 6,419,187
50	**PROPOSED REVENUE PER RUCO**				$ 6,419,187
51	Difference				$ -

TYPICAL RESIDENTIAL BILL ANALYSIS
SUN CITY WEST WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 5,179,859	92.09%	$ 6,570,297	91.93%	$ 5,905,372	91.93%
2	OTHER	445,024	7.91%	576,609	8.07%	518,256	8.07%
3	TOTAL	$ 5,624,883	100.00%	$ 7,146,907	100.00%	$ 6,423,628	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 5,450,967	96.91%	$ 6,922,639	96.86%	$ 6,222,056	96.86%
5	VARIABLE REVENUE	173,916	3.09%	224,268	3.14%	201,571	3.14%
6	TOTAL	$ 5,624,883	100.00%	$ 7,146,907	100.00%	$ 6,423,628	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 25.01		$ 31.55		$ 28.36	
	COMMODITY CHARGE						
	PRESENT / PROPOSED						
8	Max Gallons Included - Max Gallons Included -	$ -		$ -		$ -	
9		$ -		$ -		$ -	
	RESIDENTIAL BILL COMPARISONS						
	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 0	PRESENT MONTHLY COST	PROPOSED MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
10		-	25.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
11		-	50.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
12		-	100.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
13		-	150.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
14		-	200.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 0	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
15		-	25.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
16		-	50.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
17		-	100.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
18		-	150.00%	$ 25.01	$ 28.36	$ 3.35	13.38%
19		-	200.00%	$ 25.01	$ 28.36	$ 3.35	13.38%

RUCO-14

EXHIBIT R-14 ADMITTED

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

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			Step-One
20	STEP-ONE RLM-RD1 (AAF)	1	RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
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23	STEP-TWO RLM-RD2 (AAF)	1	TYPICAL RESIDENTIAL BILL ANALYSIS
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26	RLM-2	1 TO 3	Anthem Water District
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SUMMARY OF PHASE-IN RATES - SCENARIOS NO.1 AND NO.2
TYPICAL BILL ANALYSIS AND PROOF OF RECOMMENDED REVENUE

Scenario No. 1 - The Amount Of Unrealized Revenue If The Company Would Forego Full Revenue Recovery During Phase-In Period

TYPICAL BILL ANALYSIS

LINE NO.	DESCRIPTION	(A) VARIABLE MONTHLY USAGE	(B) % AVERAGE USAGE OF	(C) PRESENT MONTHLY COST	(D) RUCO MONTHLY COST	(E) RUCO MONTHLY INCREASE	(F) PRECENTAGE MONTHLY INCREASE
	Anthem Water District						
	STEP-ONE TYPICAL RESIDENTIAL BILL ANALYSIS	9,616	100.00%	$ 37.22	$ 46.36	$ 9.13	24.54%
	STEP-TWO TYPICAL RESIDENTIAL BILL ANALYSIS	9,616	100.00%	$ 37.22	$ 55.50	$ 18.27	49.08%
	STEP-THREE TYPICAL RESIDENTIAL BILL ANALYSIS	9,616	100.00%	$ 37.22	$ 64.63	$ 27.40	73.61%
	Anthem/Agua Fria Wastewater District						
	STEP-ONE TYPICAL RESIDENTIAL BILL ANALYSIS	5,814	100.00%	$ 47.99	$ 57.81	$ 9.82	20.46%
	STEP-TWO TYPICAL RESIDENTIAL BILL ANALYSIS	5,814	100.00%	$ 47.99	$ 67.63	$ 19.64	40.92%
	STEP-THREE TYPICAL RESIDENTIAL BILL ANALYSIS	5,814	100.00%	$ 47.99	$ 77.45	$ 29.46	61.39%

PROOF OF RECOMMENDED REVENUE

	(A) RUCO RECOMMENDED REVENUE INCREASE	(B) RUCO PHASE-IN REVENUE INCREASE	(C) COMPANY REQUIRED REVENUE INCREASE	(D) SHORTFALL IN REVENUE REQUIREMENT	(E) CARRYING CHARGES ON SHORTFALL 6.77%	(F) UNREALIZED REVENUE DURING PHASE-IN
Anthem Water District						
Per RUCO Attachment RCS-2, Schedule A (A)	$ 5,327,222					
RUCO Adjustment C-1	(9,456)					
Rounding	256					
RUCO Revenue Increase Per Bill Count (RLM-RD1)	$ 5,336,422					
STEP-ONE	$ 5,336,422	$ 1,778,556	$ 5,336,422	$ 3,557,866	240,868	$ 3,798,734
STEP-TWO	$ 5,336,422	$ 3,557,866	5,336,422	$ 1,778,556	377,582	$ 2,156,138
STEP-THREE	$ 5,336,422	$ 5,336,422	$ 5,336,422	$ -	145,971	$ 145,971
Total Revenue Shortfall During Phase-In Period						$ 6,100,842
Anthem/Agua Fria Wastewater District						
Per RUCO Attachment RCS-3, Schedule A (AAF)	5,296,431					
Unreconciled Difference vs. Billed Revenues	(9,736)					
Other Revenue	2,556					
Rounding	442					
RUCO Revenue Increase Per Bill Count (RLM-RD1)	5,303,169					
STEP-ONE	$ 5,303,169	$ 1,767,723	$ 5,303,169	$ 3,535,446	239,350	$ 3,774,796
STEP-TWO	$ 5,303,169	$ 3,535,446	5,303,169	$ 1,767,723	375,229	$ 2,142,952
STEP-THREE	$ 5,303,169	$ 5,303,169	$ 5,303,169	$ -	145,078	$ 145,078
Total Revenue Shortfall During Phase-In Period						$ 6,062,825

SUMMARY OF PHASE-IN RATES - SCENARIOS NO.1 AND NO.2
TYPICAL BILL ANALYSIS AND PROOF OF RECOMMENDED REVENUE

Scenario No. 2 - Adjusted Revenue Requirement To Allow Company Full Recovery Of RUCO Recommended Revenue Requirement

TYPICAL BILL ANALYSIS

LINE NO.	DESCRIPTION	(A) VARIABLE MONTHLY USAGE	(B) % AVERAGE USAGE OF	(C) PRESENT MONTHLY COST	(D) RUCO MONTHLY COST	(E) RUCO MONTHLY INCREASE	(F) PRECENTAGE MONTHLY INCREASE
	Anthem Water District						
	STEP-ONE TYPICAL RESIDENTIAL BILL ANALYSIS	9,616	100.00%	$ 37.22	$ 46.36	$ 9.13	24.54%
	STEP-TWO TYPICAL RESIDENTIAL BILL ANALYSIS	9,616	100.00%	$ 37.22	$ 55.50	$ 18.27	49.08%
	STEP-THREE TYPICAL RESIDENTIAL BILL ANALYSIS	9,616	100.00%	$ 37.22	$ 95.95	$ 58.73	157.76%
	Anthem/Agua Fria Wastewater District						
	STEP-ONE TYPICAL RESIDENTIAL BILL ANALYSIS	5,814	100.00%	$ 47.99	$ 57.81	$ 9.82	20.46%
	STEP-TWO TYPICAL RESIDENTIAL BILL ANALYSIS	5,814	100.00%	$ 47.99	$ 67.63	$ 19.64	40.92%
	STEP-THREE TYPICAL RESIDENTIAL BILL ANALYSIS	5,814	100.00%	$ 47.99	$ 111.14	$ 63.14	131.57%

PROOF OF RECOMMENDED REVENUE

	(A) RUCO RECOMMENDED REVENUE INCREASE	(B) RUCO PHASE-IN REVENUE INCREASE	(C) COMPANY REQUIRED REVENUE INCREASE	(D) SHORTFALL IN REVENUE REQUIREMENT	(E) CARRYING CHARGES ON SHORTFALL 6.77%	(F) TOTAL UNREALIZED REVENUE
Anthem Water District						
Per RUCO Attachment RCS-2, Schedule A (A)	$ 5,327,222					
RUCO Adjustment C-1	(9,456)					
Rounding	256					
RUCO Revenue Increase Per Bill Count (RLM-RD1)	$ 5,336,422					
STEP-ONE	$ 5,336,422	$ 1,778,556	$ 5,336,422	$ 3,557,866	240,868	$ 3,798,734
STEP-TWO	$ 5,336,422	$ 3,557,866	5,336,422	$ 1,778,556	377,582	$ 2,156,138
STEP-THREE	$ 5,336,422	$ 11,437,264	$ 5,336,422	$ (6,100,842)	145,971	$ (5,954,872)
Total Revenue Shortfall During Phase-In Period						$ -
Anthem/Agua Fria Wastewater District						
Per RUCO Attachment RCS-3, Schedule A (AAF)	5,296,431					
Unreconciled Difference vs. Billed Revenues	(9,736)					
Other Revenue	2,556					
Rounding	442					
RUCO Revenue Increase Per Bill Count (RLM-RD1)	5,303,169					
STEP-ONE	$ 5,303,169	$ 1,767,723	$ 5,303,169	$ 3,535,446	239,350	$ 3,774,796
STEP-TWO	$ 5,303,169	$ 3,535,446	5,303,169	$ 1,767,723	375,229	$ 2,142,952
STEP-THREE	$ 5,303,169	$ 11,365,994	$ 5,303,169	$ (6,062,825)	145,078	$ (5,917,747)
Total Revenue Shortfall During Phase-In Period						$ -

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Anthem Water District
Schedule STEP-ONE RLM-RD1 (A)
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PHASE-IN RATES STEP-ONE - 33.33% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS				
1	E1M1A - 5/8" & 3/4"	58,731	$ 21.83	$ 1,282,205	$ 1,282,205
	Commodity Usage (In Thousands Of Gallons)				
2	First Tier - First 4,000 Gals.	217,253	$ 1.9179	$ 416,669	
3	Second Tier - Next 6,000 Gals.	206,092	$ 3.0014	$ 618,569	
4	Third Tier - Over 10,000 Gals.	141,439	$ 3.8359	$ 542,538	
					$ 1,577,776
5	E1M1B - 1"	41,076	$ 53.40	$ 2,193,569	$ 2,193,569
	Commodity Usage (In Thousands Of Gallons)				
6	First Tier - First 4,000 Gals.	152,289	$ 1.9179	$ 292,074	
7	Second Tier - Next 36,000 Gals.	307,881	$ 3.0014	$ 924,082	
8	Third Tier - Over 40,000 Gals.	13,395	$ 3.8359	$ 51,380	
					$ 1,267,537
9	E1M1C - 1-1/2"	804	$ 107.62	$ 86,573	$ 86,573
	Commodity Usage (In Thousands Of Gallons)				
10	First Tier - First 109,000 Gals.	9,407	$ 3.0014	$ 28,234	
11	Second Tier - Over 109,000 Gals.	1,504	$ 3.8359	$ 5,769	
					$ 34,004
12	E1M1D - 2"	170	$ 172.24	$ 29,286	$ 29,286
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 185,000 Gals.	16,060	$ 3.0014	$ 48,203	
14	Second Tier - Over 185,000 Gals.	14,455	$ 3.8359	$ 55,447	
					$ 103,650
15	C1M1A - 5/8" & 3/4"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
16	First Tier - First 4,000 Gals.	-	$ -	$ -	
17	Second Tier - Next 9,000 Gals.	-		$ -	
18	Third Tier - Over 13,000 Gals.	-	$ -	$ -	
					$ -
19	C1M1B - 1"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
20	First Tier - First 45,000 Gals.	-	$ -	$ -	
21	Second Tier - Over 45,000 Gals.	-	$ -	$ -	
					$ -
22	Total Residential Customers	100,781			
23	Total Residential Usage (In Thousands Of Gals)	771,894			
24	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 6,574,600

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PHASE-IN RATES STEP-ONE - 33.33% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	COMMERCIAL CUSTOMERS				
25	E1M2A - 5/8" & 3/4"	-	$ 21.83	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
26	First Tier - First 13,000 Gals.	-	$ 3.0014	$ -	
27	Second Tier - Over 13,000 Gals.	-	$ 3.8359	$ -	
					$ -
28	E1M2B - 1"	46	$ 53.40	$ 2,478	$ 2,478
	Commodity Usage (In Thousands Of Gallons)				
29	First Tier - First 45,000 Gals.	1,844	$ 3.0014	$ 5,535	
30	Second Tier - Over 45,000 Gals.	1,742	$ 3.8359	$ 6,681	
					$ 12,215
31	E1M2C - 1-1/2"	35	$ 107.62	$ 3,799	$ 3,799
	Commodity Usage (In Thousands Of Gallons)				
32	First Tier - First 100,000 Gals.	1,562	$ 3.0014	$ 4,687	
33	Second Tier - Over 100,000 Gals.	266	$ 3.8359	$ 1,020	
					$ 5,708
34	E1M2D - 2"	63	$ 172.24	$ 10,897	$ 10,897
	Commodity Usage (In Thousands Of Gallons)				
35	First Tier - First 150,000 Gals.	7,098	$ 3.0014	$ 21,303	
36	Second Tier - Over 150,000 Gals.	10,493	$ 3.8359	$ 40,251	
					$ 61,554
37	E1M2E - 3"	10	$ 344.70	$ 3,436	$ 3,436
	Commodity Usage (In Thousands Of Gallons)				
38	First Tier - First 300,000 Gals.	312	$ 3.0014	$ 936	
39	Second Tier - Over 300,000 Gals.	-	$ 3.8359	$ -	
					$ 936
40	E2M1A - 5/8" & 3/4"	291	$ 21.83	$ 6,349	$ 6,349
	Commodity Usage (In Thousands Of Gallons)				
41	First Tier - First 13,000 Gals.	422	$ 3.0014	$ 1,267	
42	Second Tier - Over 13,000 Gals.	1,094	$ 3.8359	$ 4,196	
					$ 5,463
43	E2M1B - 1"	540	$ 53.40	$ 28,827	$ 28,827
	Commodity Usage (In Thousands Of Gallons)				
44	First Tier - First 45,000 Gals.	8,025	$ 3.0014	$ 24,088	
45	Second Tier - Over 45,000 Gals.	8,946	$ 3.8359	$ 34,314	
					$ 58,402
46	E2M1C - 1-1/2"	574	$ 107.62	$ 61,739	$ 61,739
	Commodity Usage (In Thousands Of Gallons)				
47	First Tier - First 100,000 Gals.	22,510	$ 3.0014	$ 67,561	
48	Second Tier - Over 100,000 Gals.	18,079	$ 3.8359	$ 69,349	
					$ 136,911
49	E2M1D - 2"	1,440	$ 172.24	$ 248,001	$ 248,001
	Commodity Usage (In Thousands Of Gallons)				
50	First Tier - First 150,000 Gals.	87,711	$ 3.0014	$ 263,257	
51	Second Tier - Over 150,000 Gals.	50,988	$ 3.8359	$ 195,582	
					$ 458,839

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Anthem Water District
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PHASE-IN RATES STEP-ONE - 33.33% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
52	E2M1E - 3"	153	$ 344.70	$ 52,728	$ 52,728
	Commodity Usage (In Thousands Of Gallons)				
53	First Tier - First 300,000 Gals.	9,316	$ 3.0014	$ 27,961	
54	Second Tier - Over 300,000 Gals.	8,546	$ 3.8359	$ 32,781	
					$ 60,742
55	Total Commercial Customers	3,152			
56	Total Commercial Usage (In Thousands Of Gals)	238,953			
57	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 1,219,022
	OWU				
58	E7M2 - Anthem Wholesale (Phoenix) OWU	28	$ -	$ -	
59	All Commodity Usage (In Thousands Of Gals)	239,764	$ 0.3732	$ 89,468.02	
60	TOTAL OWU CUSTOMER REVENUE				$ 89,468
	MISCELLANEOUS				
61	D7M1 - Anthem Treatco Portable Irrigation	572	$ -	$ -	$ -
62	All Commodity Usage (In Thousands Of Gals)	480,873	$ 1.7786	$ 855,288.96	
63	D7M2 - Anthem Treatco Non-Potable Irr.	60	$ -	$ -	$ -
64	All Commodity Usage (In Thousands Of Gals)	103,027	$ 1.7786	$ 183,245.59	
65	TOTAL SALE FOR MISCELLANEOUS CUSTOMER REVENUE				$ 1,038,535
	PRIVATE FIRE PROTECTION CUSTOMERS				
66	E6MO4 - 4"	120	$ 105.11	$ 12,638	
67	E6MO8 - 8"	518	$ 157.67	$ 81,598	
68	E6MO6 - 6"	84	$ 159.06	$ 13,361	
69	Commodity Usage (In Thousands Of Gallons)		No Charge		
70	TOTAL PRIVATE FIRE PROTECTION CUSTOMERS REVENUE				$ 107,597
	TOTAL ANTHEM WATER - BILLED REVENUE				
71	TOTAL RESIDENTIAL				$ 6,574,600
72	TOTAL COMMERCIAL				$ 1,219,022
73	TOTAL OWU				$ 89,468
74	TOTAL MISCELLANEOUS				$ 1,038,535
75	TOTAL PRIVATE FIRE				$ 107,597
76	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 9,029,222
77	Company Computation Error - RUCO Adjustment C-1				$ (9,456)
78	Unreconciled Difference vs. Billed Revenues				$ (49,242)
79	**REVISED REVENUE PER BILL COUNT**				$ 8,970,524
80	Other Revenue (Per Company Revised Schedule C-1, Line 3)				$ 272,650
81	**TOTAL REVENUE**				$ 9,243,173
82	**PROPOSED REVENUE PER RUCO**				$ 12,801,040
83	Difference				$ (3,557,866)

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
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Anthem Water District
Schedule STEP-ONE RLM-RD2 (A)

PHASE-IN RATES STEP-ONE - 33.33% OF RUCO RECOMMENDED REVENUE REQUIREMENT
TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 189,834	75.92%	$ 10,578,550	72.81%	$ 6,574,600	72.81%
2	OTHER	60,226	24.08%	3,949,493	27.19%	2,454,622	27.19%
3	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 9,029,222	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 173,588	69.42%	$ 6,451,917	44.41%	$ 4,009,886	44.41%
5	VARIABLE REVENUE	76,473	30.58%	8,076,126	55.59%	5,019,336	55.59%
6	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 9,029,222	100.00%

	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT	COMPANY PROPOSED	RUCO PROPOSED
7	BASIC MONTHLY CHARGE	$ 17.53	$ 35.13	$ 21.83

COMMODITY CHARGE

	PRESENT		PROPOSED				
8	1st Tier - Breakover	4,000	1st Tier - Breakover	4,000	$ 1.5400	$ 3.0859	$ 1.9179
9	2nd Tier - Breakover	10,000	2nd Tier - Breakover	10,000	$ 2.4100	$ 4.8293	$ 3.0014
10	3rd Tier - Over	10,000	3rd Tier - Over	10,000	$ 3.0800	$ 6.1719	$ 3.8359

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 9,616	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
11		2,404	25.00%	$ 21.23	$ 26.44	$ 5.21	24.54%
12		4,808	50.00%	$ 24.93	$ 31.05	$ 6.12	24.54%
13		9,616	100.00%	$ 37.22	$ 46.36	$ 9.13	24.54%
14		14,424	150.00%	$ 61.42	$ 76.49	$ 15.07	24.54%
15		19,232	200.00%	$ 76.22	$ 94.93	$ 18.71	24.54%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 8,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
16		2,000	25.00%	$ 20.61	$ 25.67	$ 5.06	24.54%
17		4,000	50.00%	$ 23.69	$ 29.50	$ 5.81	24.54%
18		8,000	100.00%	$ 33.33	$ 41.51	$ 8.18	24.54%
19		12,000	150.00%	$ 42.97	$ 53.51	$ 10.54	24.54%
20		16,000	200.00%	$ 66.27	$ 82.53	$ 16.26	24.54%

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Schedule STEP-TWO RLM-RD1 (A)
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PHASE-IN RATES STEP-ONE - 66.67% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS				
1	E1M1A - 5/8" & 3/4"	58,731	$ 26.13	$ 1,534,878	$ 1,534,878
	Commodity Usage (In Thousands Of Gallons)				
2	First Tier - First 4,000 Gals.	217,253	$ 2.2958	$ 498,779	
3	Second Tier - Next 6,000 Gals.	206,092	$ 3.5929	$ 740,465	
4	Third Tier - Over 10,000 Gals.	141,439	$ 4.5918	$ 649,451	
					$ 1,888,695
5	E1M1B - 1"	41,076	$ 63.93	$ 2,625,837	$ 2,625,837
	Commodity Usage (In Thousands Of Gallons)				
6	First Tier - First 4,000 Gals.	152,289	$ 2.2958	$ 349,631	
7	Second Tier - Next 36,000 Gals.	307,881	$ 3.5929	$ 1,106,183	
8	Third Tier - Over 40,000 Gals.	13,395	$ 4.5918	$ 61,506	
					$ 1,517,320
9	E1M1C - 1-1/2"	804	$ 128.82	$ 103,633	$ 103,633
	Commodity Usage (In Thousands Of Gallons)				
10	First Tier - First 109,000 Gals.	9,407	$ 3.5929	$ 33,798	
11	Second Tier - Over 109,000 Gals.	1,504	$ 4.5918	$ 6,906	
					$ 40,704
12	E1M1D - 2"	170	$ 206.18	$ 35,058	$ 35,058
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 185,000 Gals.	16,060	$ 3.5929	$ 57,702	
14	Second Tier - Over 185,000 Gals.	14,455	$ 4.5918	$ 66,374	
					$ 124,076
15	C1M1A - 5/8" & 3/4"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
16	First Tier - First 4,000 Gals.	-	$ -	$ -	
17	Second Tier - Next 9,000 Gals.	-		$ -	
18	Third Tier - Over 13,000 Gals.	-	$ -	$ -	
					$ -
19	C1M1B - 1"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
20	First Tier - First 45,000 Gals.	-	$ -	$ -	
21	Second Tier - Over 45,000 Gals.	-	$ -	$ -	
					$ -
22	Total Residential Customers	100,781			
23	Total Residential Usage (In Thousands Of Gals)	771,894			
24	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 7,870,200

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PHASE-IN RATES STEP-ONE - 66.67% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	COMMERCIAL CUSTOMERS				
25	E1M2A - 5/8" & 3/4"	-	$ 26.13	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
26	First Tier - First 13,000 Gals.	-	$ 3.5929	$ -	
27	Second Tier - Over 13,000 Gals.	-	$ 4.5918	$ -	
					$ -
28	E1M2B - 1"	46	$ 63.93	$ 2,966	$ 2,966
	Commodity Usage (In Thousands Of Gallons)				
29	First Tier - First 45,000 Gals.	1,844	$ 3.5929	$ 6,625	
30	Second Tier - Over 45,000 Gals.	1,742	$ 4.5918	$ 7,997	
					$ 14,623
31	E1M2C - 1-1/2"	35	$ 128.82	$ 4,547	$ 4,547
	Commodity Usage (In Thousands Of Gallons)				
32	First Tier - First 100,000 Gals.	1,562	$ 3.5929	$ 5,611	
33	Second Tier - Over 100,000 Gals.	266	$ 4.5918	$ 1,221	
					$ 6,832
34	E1M2D - 2"	63	$ 206.18	$ 13,044	$ 13,044
	Commodity Usage (In Thousands Of Gallons)				
35	First Tier - First 150,000 Gals.	7,098	$ 3.5929	$ 25,501	
36	Second Tier - Over 150,000 Gals.	10,493	$ 4.5918	$ 48,183	
					$ 73,684
37	E1M2E - 3"	10	$ 412.63	$ 4,113	$ 4,113
	Commodity Usage (In Thousands Of Gallons)				
38	First Tier - First 300,000 Gals.	312	$ 3.5929	$ 1,121	
39	Second Tier - Over 300,000 Gals.	-	$ 4.5918	$ -	
					$ 1,121
40	E2M1A - 5/8" & 3/4"	291	$ 26.13	$ 7,600	$ 7,600
	Commodity Usage (In Thousands Of Gallons)				
41	First Tier - First 13,000 Gals.	422	$ 3.5929	$ 1,516	
42	Second Tier - Over 13,000 Gals.	1,094	$ 4.5918	$ 5,023	
					$ 6,540
43	E2M1B - 1"	540	$ 63.93	$ 34,507	$ 34,507
	Commodity Usage (In Thousands Of Gallons)				
44	First Tier - First 45,000 Gals.	8,025	$ 3.5929	$ 28,835	
45	Second Tier - Over 45,000 Gals.	8,946	$ 4.5918	$ 41,076	
					$ 69,910
46	E2M1C - 1-1/2"	574	$ 128.82	$ 73,905	$ 73,905
	Commodity Usage (In Thousands Of Gallons)				
47	First Tier - First 100,000 Gals.	22,510	$ 3.5929	$ 80,875	
48	Second Tier - Over 100,000 Gals.	18,079	$ 4.5918	$ 83,015	
					$ 163,890
49	E2M1D - 2"	1,440	$ 206.18	$ 296,873	$ 296,873
	Commodity Usage (In Thousands Of Gallons)				
50	First Tier - First 150,000 Gals.	87,711	$ 3.5929	$ 315,135	
51	Second Tier - Over 150,000 Gals.	50,988	$ 4.5918	$ 234,124	
					$ 549,258

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Anthem Water District
Schedule STEP-TWO RLM-RD1 (A)
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PHASE-IN RATES STEP-ONE - 66.67% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
52	E2M1E - 3"	153	$ 412.63	$ 63,119	$ 63,119
	Commodity Usage (In Thousands Of Gallons)				
53	First Tier - First 300,000 Gals.	9,316	$ 3.5929	$ 33,471	
54	Second Tier - Over 300,000 Gals.	8,546	$ 4.5918	$ 39,241	
					$ 72,712
55	Total Commercial Customers	3,152			
56	Total Commercial Usage (In Thousands Of Gals)	238,953			
57	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 1,459,245
	OWU				
58	E7M2 - Anthem Wholesale (Phoenix) OWU	28	$ -	$ -	
59	All Commodity Usage (In Thousands Of Gals)	239,764	$ 0.4467	$ 107,098.72	
60	TOTAL OWU CUSTOMER REVENUE				$ 107,099
	MISCELLANEOUS				
61	D7M1 - Anthem Treatco Portable Irrigation	572	$ -	$ -	$ -
62	All Commodity Usage (In Thousands Of Gals)	480,873	$ 2.1291	$1,023,833.36	
63	D7M2 - Anthem Treatco Non-Potable Irr.	60	$ -	$ -	$ -
64	All Commodity Usage (In Thousands Of Gals)	103,027	$ 2.1291	$ 219,356.21	
65	TOTAL SALE FOR MISCELLANEOUS CUSTOMER REVENUE				$ 1,243,190
	PRIVATE FIRE PROTECTION CUSTOMERS				
66	E6MO4 - 4"	120	$ 125.83	$ 15,128	
67	E6MO8 - 8"	518	$ 188.74	$ 97,678	
68	E6MO6 - 6"	84	$ 190.41	$ 15,994	
69	Commodity Usage (In Thousands Of Gallons)		No Charge		
70	TOTAL PRIVATE FIRE PROTECTION CUSTOMERS REVENUE				$ 128,800
	TOTAL ANTHEM WATER - BILLED REVENUE				
71	TOTAL RESIDENTIAL				$ 7,870,200
72	TOTAL COMMERCIAL				$ 1,459,245
73	TOTAL OWU				$ 107,099
74	TOTAL MISCELLANEOUS				$ 1,243,190
75	TOTAL PRIVATE FIRE				$ 128,800
76	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 10,808,532
77	Company Computation Error - RUCO Adjustment C-1				$ (9,456)
78	Unreconciled Difference vs. Billed Revenues				$ (49,242)
79	**REVISED REVENUE PER BILL COUNT**				$ 10,749,834
80	Other Revenue (Per Company Revised Schedule C-1, Line 3)				$ 272,650
81	**TOTAL REVENUE**				$ 11,022,484
82	**PROPOSED REVENUE PER RUCO**				$ 12,801,040
83	Difference				$ (1,778,556)

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
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Anthem Water District
Schedule STEP-TWO RLM-RD2 (A)

PHASE-IN RATES STEP-ONE - 66.67% OF RUCO RECOMMENDED REVENUE REQUIREMENT
TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B) PRESENT	(C) COMPANY PROPOSED	(D) COMPANY PROPOSED	(E) RUCO PROPOSED	(F) RUCO PROPOSED
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 189,834	75.92%	$ 10,578,550	72.81%	$ 7,870,200	72.81%
2	OTHER	60,226	24.08%	3,949,493	27.19%	2,938,333	27.19%
3	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 10,808,532	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 173,588	69.42%	$ 6,451,917	44.41%	$ 4,800,079	44.41%
5	VARIABLE REVENUE	76,473	30.58%	8,076,126	55.59%	6,008,453	55.59%
6	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 10,808,532	100.00%

	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT	COMPANY PROPOSED	RUCO PROPOSED
7	BASIC MONTHLY CHARGE	$ 17.53	$ 35.13	$ 26.13

COMMODITY CHARGE

	PRESENT		PROPOSED		PRESENT	COMPANY PROPOSED	RUCO PROPOSED
8	1st Tier - Breakover	4,000	1st Tier - Breakover	4,000	$ 1.5400	$ 3.0859	$ 2.2958
9	2nd Tier - Breakover	10,000	2nd Tier - Breakover	10,000	$ 2.4100	$ 4.8293	$ 3.5929
10	3rd Tier - Over	10,000	3rd Tier - Over	10,000	$ 3.0800	$ 6.1719	$ 4.5918

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 9,616	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
11		2,404	25.00%	$ 21.23	$ 31.65	$ 10.42	49.08%
12		4,808	50.00%	$ 24.93	$ 37.17	$ 12.24	49.08%
13		9,616	100.00%	$ 37.22	$ 55.50	$ 18.27	49.08%
14		14,424	150.00%	$ 61.42	$ 91.56	$ 30.14	49.08%
15		19,232	200.00%	$ 76.22	$ 113.64	$ 37.41	49.08%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 8,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
16		2,000	25.00%	$ 20.61	$ 30.73	$ 10.12	49.08%
17		4,000	50.00%	$ 23.69	$ 35.32	$ 11.63	49.08%
18		8,000	100.00%	$ 33.33	$ 49.69	$ 16.36	49.08%
19		12,000	150.00%	$ 42.97	$ 64.06	$ 21.09	49.08%
20		16,000	200.00%	$ 66.27	$ 98.80	$ 32.53	49.08%

Arizona-Amercian Water Company
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Anthem Water District
Schedule STEP-THREE RLM-RD1 (A)
Pages 1 Thru 3

PHASE-IN RATES STEP-ONE - 100.00% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS				
1	E1M1A - 5/8" & 3/4"	58,731	$ 45.19	$ 2,653,801	$ 2,653,801
	Commodity Usage (In Thousands Of Gallons)				
2	First Tier - First 4,000 Gals.	217,253	$ 3.9695	$ 862,387	
3	Second Tier - Next 6,000 Gals.	206,092	$ 6.2121	$ 1,280,263	
4	Third Tier - Over 10,000 Gals.	141,439	$ 7.9391	$ 1,122,900	
					$ 3,265,550
5	E1M1B - 1"	41,076	$ 110.53	$ 4,540,067	$ 4,540,067
	Commodity Usage (In Thousands Of Gallons)				
6	First Tier - First 4,000 Gals.	152,289	$ 3.9695	$ 604,511	
7	Second Tier - Next 36,000 Gals.	307,881	$ 6.2121	$ 1,912,588	
8	Third Tier - Over 40,000 Gals.	13,395	$ 7.9391	$ 106,343	
					$ 2,623,442
9	E1M1C - 1-1/2"	804	$ 222.73	$ 179,181	$ 179,181
	Commodity Usage (In Thousands Of Gallons)				
10	First Tier - First 109,000 Gals.	9,407	$ 6.2121	$ 58,437	
11	Second Tier - Over 109,000 Gals.	1,504	$ 7.9391	$ 11,940	
					$ 70,378
12	E1M1D - 2"	170	$ 356.49	$ 60,614	$ 60,614
	Commodity Usage (In Thousands Of Gallons)				
13	First Tier - First 185,000 Gals.	16,060	$ 6.2121	$ 99,766	
14	Second Tier - Over 185,000 Gals.	14,455	$ 7.9391	$ 114,760	
					$ 214,526
15	C1M1A - 5/8" & 3/4"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
16	First Tier - First 4,000 Gals.	-	$ -	$ -	
17	Second Tier - Next 9,000 Gals.	-		$ -	
18	Third Tier - Over 13,000 Gals.	-	$ -	$ -	
					$ -
19	C1M1B - 1"	-	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
20	First Tier - First 45,000 Gals.	-	$ -	$ -	
21	Second Tier - Over 45,000 Gals.	-	$ -	$ -	
					$ -
22	Total Residential Customers	100,781			
23	Total Residential Usage (In Thousands Of Gals)	771,894			
24	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 13,607,559

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Arizona-Amercian Water Company
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Anthem Water District
Schedule STEP-THREE RLM-RD1 (A)
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PHASE-IN RATES STEP-ONE - 100.00% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
	COMMERCIAL CUSTOMERS				
25	E1M2A - 5/8" & 3/4"	-	$ 45.19	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)				
26	First Tier - First 13,000 Gals.	-	$ 6.2121	$ -	
27	Second Tier - Over 13,000 Gals.	-	$ 7.9391	$ -	
					$ -
28	E1M2B - 1"	46	$ 110.53	$ 5,129	$ 5,129
	Commodity Usage (In Thousands Of Gallons)				
29	First Tier - First 45,000 Gals.	1,844	$ 6.2121	$ 11,455	
30	Second Tier - Over 45,000 Gals.	1,742	$ 7.9391	$ 13,827	
					$ 25,282
31	E1M2C - 1-1/2"	35	$ 222.73	$ 7,862	$ 7,862
	Commodity Usage (In Thousands Of Gallons)				
32	First Tier - First 100,000 Gals.	1,562	$ 6.2121	$ 9,701	
33	Second Tier - Over 100,000 Gals.	266	$ 7.9391	$ 2,112	
					$ 11,813
34	E1M2D - 2"	63	$ 356.49	$ 22,554	$ 22,554
	Commodity Usage (In Thousands Of Gallons)				
35	First Tier - First 150,000 Gals.	7,098	$ 6.2121	$ 44,090	
36	Second Tier - Over 150,000 Gals.	10,493	$ 7.9391	$ 83,309	
					$ 127,399
37	E1M2E - 3"	10	$ 713.44	$ 7,111	$ 7,111
	Commodity Usage (In Thousands Of Gallons)				
38	First Tier - First 300,000 Gals.	312	$ 6.2121	$ 1,938	
39	Second Tier - Over 300,000 Gals.	-	$ 7.9391	$ -	
					$ 1,938
40	E2M1A - 5/8" & 3/4"	291	$ 45.19	$ 13,140	$ 13,140
	Commodity Usage (In Thousands Of Gallons)				
41	First Tier - First 13,000 Gals.	422	$ 6.2121	$ 2,622	
42	Second Tier - Over 13,000 Gals.	1,094	$ 7.9391	$ 8,685	
					$ 11,307
43	E2M1B - 1"	540	$ 110.53	$ 59,663	$ 59,663
	Commodity Usage (In Thousands Of Gallons)				
44	First Tier - First 45,000 Gals.	8,025	$ 6.2121	$ 49,855	
45	Second Tier - Over 45,000 Gals.	8,946	$ 7.9391	$ 71,020	
					$ 120,875
46	E2M1C - 1-1/2"	574	$ 222.73	$ 127,782	$ 127,782
	Commodity Usage (In Thousands Of Gallons)				
47	First Tier - First 100,000 Gals.	22,510	$ 6.2121	$ 139,833	
48	Second Tier - Over 100,000 Gals.	18,079	$ 7.9391	$ 143,533	
					$ 283,366
49	E2M1D - 2"	1,440	$ 356.49	$ 513,292	$ 513,292
	Commodity Usage (In Thousands Of Gallons)				
50	First Tier - First 150,000 Gals.	87,711	$ 6.2121	$ 544,867	
51	Second Tier - Over 150,000 Gals.	50,988	$ 7.9391	$ 404,799	
					$ 949,666

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Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem Water District
Schedule STEP-THREE RLM-RD1 (A)
Pages 1 Thru 3

PHASE-IN RATES STEP-ONE - 100.00% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO PROPOSED REVENUES	(D) TOTAL REVENUES
52	E2M1E - 3"	153	$ 713.44	$ 109,132	$ 109,132
	Commodity Usage (In Thousands Of Gallons)				
53	First Tier - First 300,000 Gals.	9,316	$ 6.2121	$ 57,872	
54	Second Tier - Over 300,000 Gals.	8,546	$ 7.9391	$ 67,848	
					$ 125,720
55	*Total Commercial Customers*	3,152			
56	Total Commercial Usage (In Thousands Of Gals)	238,953			
57	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 2,523,031
	OWU				
58	E7M2 - Anthem Wholesale (Phoenix) OWU	28	$ -	$ -	
59	All Commodity Usage (In Thousands Of Gals)	239,764	$ 0.7723	$ 185,173.46	
60	TOTAL OWU CUSTOMER REVENUE				$ 185,173
	MISCELLANEOUS				
61	D7M1 - Anthem Treatco Portable Irrigation	572	$ -	$ -	$ -
62	All Commodity Usage (In Thousands Of Gals)	480,873	$ 3.6812	$1,770,205.80	
63	D7M2 - Anthem Treatco Non-Potable Irr.	60	$ -	$ -	$ -
64	All Commodity Usage (In Thousands Of Gals)	103,027	$ 3.6812	$ 379,266.44	
65	TOTAL SALE FOR MISCELLANEOUS CUSTOMER REVENUE				$ 2,149,472
	PRIVATE FIRE PROTECTION CUSTOMERS				
66	E6MO4 - 4"	120	$ 217.55	$ 26,156	
67	E6MO8 - 8"	518	$ 326.33	$ 168,884	
68	E6MO6 - 6"	84	$ 329.21	$ 27,654	
69	Commodity Usage (In Thousands Of Gallons)		No Charge		
70	TOTAL PRIVATE FIRE PROTECTION CUSTOMERS REVENUE				$ 222,695
	TOTAL ANTHEM WATER - BILLED REVENUE				
71	TOTAL RESIDENTIAL				$ 13,607,559
72	TOTAL COMMERCIAL				$ 2,523,031
73	TOTAL OWU				$ 185,173
74	TOTAL MISCELLANEOUS				$ 2,149,472
75	TOTAL PRIVATE FIRE				$ 222,695
76	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 18,687,931
77	Company Computation Error - RUCO Adjustment C-1				$ (9,456)
78	Unreconciled Difference vs. Billed Revenues				$ (49,242)
79	**REVISED REVENUE PER BILL COUNT**				$ 18,629,233
80	Other Revenue (Per Company Revised Schedule C-1, Line 3)				$ 272,650
81	**TOTAL REVENUE**				$ 18,901,882
82	**PROPOSED REVENUE PER RUCO**		12,801,040	$ 6,100,842	$ 18,901,882
83	Difference				$ 0

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem Water District
Schedule STEP-THREE RLM-RD2 (A)

PHASE-IN RATES STEP-ONE - 100.00% OF RUCO RECOMMENDED REVENUE REQUIREMENT
TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 189,834	75.92%	$ 10,578,550	72.81%	$ 13,607,559	72.81%
2	OTHER	60,226	24.08%	3,949,493	27.19%	5,080,371	27.19%
3	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 18,687,931	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 173,588	69.42%	$ 6,451,917	44.41%	$ 8,299,327	44.41%
5	VARIABLE REVENUE	76,473	30.58%	8,076,126	55.59%	10,388,603	55.59%
6	TOTAL	$ 250,061	100.00%	$ 14,528,043	100.00%	$ 18,687,931	100.00%

	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT	COMPANY PROPOSED	RUCO PROPOSED
7	BASIC MONTHLY CHARGE	$ 17.53	$ 35.13	$ 45.19

COMMODITY CHARGE

	PRESENT		PROPOSED				
8	1st Tier - Breakover	4,000	1st Tier - Breakover	4,000	$ 1.5400	$ 3.0859	$ 3.9695
9	2nd Tier - Breakover	10,000	2nd Tier - Breakover	10,000	$ 2.4100	$ 4.8293	$ 6.2121
10	3rd Tier - Over	10,000	3rd Tier - Over	10,000	$ 3.0800	$ 6.1719	$ 7.9391

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 9,616	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
11		2,404	25.00%	$ 21.23	$ 54.73	$ 33.50	157.76%
12		4,808	50.00%	$ 24.93	$ 64.27	$ 39.34	157.76%
13		9,616	100.00%	$ 37.22	$ 95.95	$ 58.73	157.76%
14		14,424	150.00%	$ 61.42	$ 158.31	$ 96.89	157.76%
15		19,232	200.00%	$ 76.22	$ 196.48	$ 120.25	157.76%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 8,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
16		2,000	25.00%	$ 20.61	$ 53.12	$ 32.51	157.76%
17		4,000	50.00%	$ 23.69	$ 61.06	$ 37.37	157.76%
18		8,000	100.00%	$ 33.33	$ 85.91	$ 52.58	157.76%
19		12,000	150.00%	$ 42.97	$ 110.76	$ 67.79	157.76%
20		16,000	200.00%	$ 66.27	$ 170.82	$ 104.55	157.76%

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem/Agua Fria Wastewater District
Schedule STEP-ONE RLM-RD1 (AAF)

PHASE-IN RATES STEP-ONE - 33.33% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E1MS1 - All Residential Customers	156,699	$ 33.44	$ 5,239,909	
2	Volume Charge - First 7,000 Gallons	882,859	$ 4.1919	$ 3,700,840	
	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 8,940,749
	COMMERCIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E2MS1 - Commercial 5/8" Customers	51	$ 33.44	$ 1,704	
2	Volume Charge - First 10,000 Gallons	302	$ 4.1919	$ 1,266	$ 2,970
3	E2MS2 - Commercial 3/4" Customers	12	$ 50.16	$ 602	
4	Volume Charge - First 15,000 Gallons		$ 4.1919	$ -	$ 602
5	E2MS3 - Commercial 1" Customers	261	$ 66.95	$ 17,448	
6	Volume Charge - First 20,000 Gallons	2,316	$ 4.1919	$ 9,707	$ 27,155
7	E2MS4 - Commercial Large Customers	1,583	$ 133.85	$ 211,938	
8	Volume Charge - All Gallons	80,477	$ 4.1919	$ 337,352	$ 549,290
9	Total Customer Bills			$ 231,692	
10	Total Customer Charged Usage			$ 348,325	
11	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 580,016
	OWU CUSTOMERS (Usage In Thousands Of Gallons)				
12	E5M2 - Anthem Wholesale (Phoenix)	24		$ -	
13	Volume Charge - All Gallons	231,722	$ 3.8185	$ 884,822	
14	TOTAL OWU CUSTOMERS REVENUE				$ 884,822
	TOTAL ANTHEM/AGUA FRIA WASTEWATER - BILLED REVENUES				
15	TOTAL RESIDENTIAL				$ 8,940,749
16	TOTAL COMMERCIAL				$ 580,016
17	TOTAL OWU				$ 884,822
18	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 10,405,587
19	Unreconciled Difference vs. Billed Revenues				$ (9,736)
20	**REVISED REVENUE PER BILL COUNT**				$ 10,395,852
21	Other Revenue (Per Company Schedule C-1, Line 3)				$ 2,556
22	**TOTAL REVENUE**				$ 10,398,408
23	**PROPOSED REVENUE PER RUCO**				$ 13,933,854
24	Difference				$ (3,535,446)

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem/Agua Fria Wastewater District
Schedule STEP-ONE RLM-RD2 (AAF)

PHASE-IN RATES STEP-ONE - 33.33% OF RUCO RECOMMENDED REVENUE REQUIREMENT
TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 7,319,228	85.81%	$ 13,494,262	85.92%	$ 8,940,749	85.92%
2	OTHER	1,210,548	14.19%	2,210,878	14.08%	1,464,838	14.08%
3	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 10,405,587	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 4,480,015	52.52%	$ 8,258,281	52.58%	$ 5,471,601	52.58%
5	VARIABLE REVENUE	4,049,761	47.48%	7,446,859	47.42%	4,933,986	47.42%
6	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 10,405,587	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 27.76		$ 50.47		$ 33.44	
	COMMODITY CHARGE						
	PRESENT / PROPOSED						
8	Max Gallons Included 7,000 / Max Gallons Included 7,000	$ 3.48		$ 6.33		$ 4.19	
9		$ -		$ -		$ -	
	RESIDENTIAL BILL COMPARISONS						
	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 5,814	PRESENT MONTHLY COST	PROPOSED MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
10		1,454	25.00%	$ 32.82	$ 39.53	$ 6.71	20.46%
11		2,907	50.00%	$ 37.88	$ 45.63	$ 7.75	20.46%
12		5,814	100.00%	$ 47.99	$ 57.81	$ 9.82	20.46%
13		8,721	150.00%	$ 52.12	$ 62.78	$ 10.66	20.46%
14		11,628	200.00%	$ 52.12	$ 62.78	$ 10.66	20.46%
	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 7,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
15		1,750	25.00%	$ 33.85	$ 40.78	$ 6.93	20.46%
16		3,500	50.00%	$ 39.94	$ 48.11	$ 8.17	20.46%
17		7,000	100.00%	$ 52.12	$ 62.78	$ 10.66	20.46%
18		10,500	150.00%	$ 52.12	$ 62.78	$ 10.66	20.46%
19		14,000	200.00%	$ 52.12	$ 62.78	$ 10.66	20.46%

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem/Agua Fria Wastewater District
Schedule STEP-TWO RLM-RD1 (AAF)

PHASE-IN RATES STEP-ONE - 66.67% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E1MS1 - All Residential Customers	156,699	$ 39.12	$ 6,130,076	
2	Volume Charge - First 7,000 Gallons	882,859	$ 4.9040	$ 4,329,547	
	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 10,459,623
	COMMERCIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E2MS1 - Commercial 5/8" Customers	51	$ 39.12	$ 1,994	
2	Volume Charge - First 10,000 Gallons	302	$ 4.9040	$ 1,481	$ 3,475
3	E2MS2 - Commercial 3/4" Customers	12	$ 58.68	$ 704	
4	Volume Charge - First 15,000 Gallons		$ 4.9040	$ -	$ 704
5	E2MS3 - Commercial 1" Customers	261	$ 78.33	$ 20,412	
6	Volume Charge - First 20,000 Gallons	2,316	$ 4.9040	$ 11,356	$ 31,768
7	E2MS4 - Commercial Large Customers	1,583	$ 156.59	$ 247,943	
8	Volume Charge - All Gallons	80,477	$ 4.9040	$ 394,662	$ 642,604
9	Total Customer Bills			$ 271,052	
10	Total Customer Charged Usage			$ 407,499	
11	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 678,551
	OWU CUSTOMERS (Usage In Thousands Of Gallons)				
12	E5M2 - Anthem Wholesale (Phoenix)	24		$ -	
13	Volume Charge - All Gallons	231,722	$ 4.4672	$ 1,035,137	
14	TOTAL OWU CUSTOMERS REVENUE				$ 1,035,137
	TOTAL ANTHEM/AGUA FRIA WASTEWATER - BILLED REVENUES				
15	TOTAL RESIDENTIAL				$ 10,459,623
16	TOTAL COMMERCIAL				$ 678,551
17	TOTAL OWU				$ 1,035,137
18	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 12,173,311
19	Unreconciled Difference vs. Billed Revenues				$ (9,736)
20	**REVISED REVENUE PER BILL COUNT**				$ 12,163,575
21	Other Revenue (Per Company Schedule C-1, Line 3)				$ 2,556
22	**TOTAL REVENUE**				$ 12,166,131
23	**PROPOSED REVENUE PER RUCO**				$ 13,933,854
24	Difference				$ (1,767,723)

Arizona-Amercian Water Company
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Test Year Ended December 31, 2008

Anthem/Agua Fria Wastewater District
Schedule STEP-TWO RLM-RD2 (AAF)

PHASE-IN RATES STEP-ONE - 66.67% OF RUCO RECOMMENDED REVENUE REQUIREMENT
TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 7,319,228	85.81%	$ 13,494,262	85.92%	$ 10,459,623	85.92%
2	OTHER	1,210,548	14.19%	2,210,878	14.08%	1,713,688	14.08%
3	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 12,173,311	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 4,480,015	52.52%	$ 8,258,281	52.58%	$ 6,401,128	52.58%
5	VARIABLE REVENUE	4,049,761	47.48%	7,446,859	47.42%	5,772,182	47.42%
6	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 12,173,311	100.00%
	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT		COMPANY PROPOSED		RUCO PROPOSED	
7	BASIC MONTHLY CHARGE	$ 27.76		$ 50.47		$ 39.12	
	COMMODITY CHARGE						
	PRESENT: Max Gallons Included 7,000 / PROPOSED: Max Gallons Included 7,000						
8		$ 3.48		$ 6.33		$ 4.90	
9		$ -		$ -		$ -	

RESIDENTIAL BILL COMPARISONS

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 5,814	PRESENT MONTHLY COST	PROPOSED MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
10		1,454	25.00%	$ 32.82	$ 46.25	$ 13.43	40.92%
11		2,907	50.00%	$ 37.88	$ 53.38	$ 15.50	40.92%
12		5,814	100.00%	$ 47.99	$ 67.63	$ 19.64	40.92%
13		8,721	150.00%	$ 52.12	$ 73.45	$ 21.33	40.92%
14		11,628	200.00%	$ 52.12	$ 73.45	$ 21.33	40.92%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 7,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
15		1,750	25.00%	$ 33.85	$ 47.70	$ 13.85	40.92%
16		3,500	50.00%	$ 39.94	$ 56.28	$ 16.34	40.92%
17		7,000	100.00%	$ 52.12	$ 73.45	$ 21.33	40.92%
18		10,500	150.00%	$ 52.12	$ 73.45	$ 21.33	40.92%
19		14,000	200.00%	$ 52.12	$ 73.45	$ 21.33	40.92%

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem/Agua Fria Wastewater District
Schedule STEP-THREE RLM-RD1 (AAF)

PHASE-IN RATES STEP-ONE - 100.00% OF RUCO RECOMMENDED REVENUE REQUIREMENT
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) TEST YEAR ADJUSTED DETERMIN'TS	(B) PROPOSED CHARGES & USAGE FEES	(C) RUCO TEST YEAR REVENUES	(D) TOTAL REVENUES
	RESIDENTIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E1MS1 - All Residential Customers	156,699	$ 64.28	$ 10,073,281	
2	Volume Charge - First 7,000 Gallons	882,859	$ 8.0585	$ 7,114,551	
	TOTAL RESIDENTIAL CUSTOMERS REVENUE				$ 17,187,832
	COMMERCIAL CUSTOMERS (Usage In Thousands Of Gallons)				
1	E2MS1 - Commercial 5/8" Customers	51	$ 64.28	$ 3,276	
2	Volume Charge - First 10,000 Gallons	302	$ 8.0585	$ 2,434	$ 5,710
3	E2MS2 - Commercial 3/4" Customers	12	$ 96.42	$ 1,157	
4	Volume Charge - First 15,000 Gallons		$ 8.0585	$ -	$ 1,157
5	E2MS3 - Commercial 1" Customers	261	$ 128.71	$ 33,542	
6	Volume Charge - First 20,000 Gallons	2,316	$ 8.0585	$ 18,661	$ 52,202
7	E2MS4 - Commercial Large Customers	1,583	$ 257.32	$ 407,433	
8	Volume Charge - All Gallons	80,477	$ 8.0585	$ 648,530	$ 1,055,963
9	Total Customer Bills			$ 445,408	
10	Total Customer Charged Usage			$ 669,624	
11	TOTAL COMMERCIAL CUSTOMERS REVENUE				$ 1,115,032
	OWU CUSTOMERS (Usage In Thousands Of Gallons)				
12	E5M2 - Anthem Wholesale (Phoenix)	24		$ -	
13	Volume Charge - All Gallons	231,722	$ 7.3407	$ 1,700,995	
14	TOTAL OWU CUSTOMERS REVENUE				$ 1,700,995
	TOTAL ANTHEM/AGUA FRIA WASTEWATER - BILLED REVENUES				
15	TOTAL RESIDENTIAL				$ 17,187,832
16	TOTAL COMMERCIAL				$ 1,115,032
17	TOTAL OWU				$ 1,700,995
18	**TOTAL RUCO PROPOSED REVENUE PER BILL COUNT**				$ 20,003,859
19	Unreconciled Difference vs. Billed Revenues				$ (9,736)
20	**REVISED REVENUE PER BILL COUNT**				$ 19,994,123
21	Other Revenue (Per Company Schedule C-1, Line 3)				$ 2,556
22	**TOTAL REVENUE**				$ 19,996,679
23	**PROPOSED REVENUE PER RUCO**		$ 13,933,854	$ 6,062,825	$ 19,996,679
24	Difference				$ 0

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem/Agua Fria Wastewater District
Schedule STEP-THREE RLM-RD2 (AAF)

PHASE-IN RATES STEP-ONE - 100.00% OF RUCO RECOMMENDED REVENUE REQUIREMENT
TYPICAL RESIDENTIAL BILL ANALYSIS
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PRESENT	(B)	(C) COMPANY PROPOSED	(D)	(E) RUCO PROPOSED	(F)
	REVENUE ALLOCATION						
1	RESIDENTIAL	$ 7,319,228	85.81%	$ 13,494,262	85.92%	$ 17,187,832	85.92%
2	OTHER	1,210,548	14.19%	2,210,878	14.08%	2,816,027	14.08%
3	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 20,003,859	100.00%
	ALLOCATION RATIOS						
4	FIX REVENUE	$ 4,480,015	52.52%	$ 8,258,281	52.58%	$ 10,518,689	52.58%
5	VARIABLE REVENUE	4,049,761	47.48%	7,446,859	47.42%	9,485,170	47.42%
6	TOTAL	$ 8,529,776	100.00%	$ 15,705,140	100.00%	$ 20,003,859	100.00%

	RESIDENTIAL (5/8" X 3/4") RATE DESIGN	PRESENT	COMPANY PROPOSED	RUCO PROPOSED
7	BASIC MONTHLY CHARGE	$ 27.76	$ 50.47	$ 64.28
	COMMODITY CHARGE			
8	PRESENT Max Gallons Included 7,000 / PROPOSED Max Gallons Included 7,000	$ 3.48	$ 6.33	$ 8.06
9		$ -	$ -	$ -

RESIDENTIAL BILL COMPARISONS

	AVERAGE RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 5,814	PRESENT MONTHLY COST	PROPOSED MONTHLY COST	RUCO MONTHLY INCREASE	PRECENTAGE MONTHLY INCREASE
10		1,454	25.00%	$ 32.82	$ 76.00	$ 43.18	131.57%
11		2,907	50.00%	$ 37.88	$ 87.71	$ 49.83	131.57%
12		5,814	100.00%	$ 47.99	$ 111.14	$ 63.14	131.57%
13		8,721	150.00%	$ 52.12	$ 120.69	$ 68.57	131.57%
14		11,628	200.00%	$ 52.12	$ 120.69	$ 68.57	131.57%

	MEDIAN RESIDENTIAL BILL COMPARISONS COST OF WATER SERVICE AT DIFFERENT LEVELS OF USAGE AND THE PERCENTAGE INCREASE IN BILL	VARIABLE MONTHLY USAGE	% AVERAGE USAGE OF 7,000	PRESENT MONTHLY COST	RUCO MONTHLY COST	RUCO MONTHLY INCREASE	PERCENTAGE MONTHLY INCREASE
15		1,750	25.00%	$ 33.85	$ 78.39	$ 44.54	131.57%
16		3,500	50.00%	$ 39.94	$ 92.49	$ 52.55	131.57%
17		7,000	100.00%	$ 52.12	$ 120.69	$ 68.57	131.57%
18		10,500	150.00%	$ 52.12	$ 120.69	$ 68.57	131.57%
19		14,000	200.00%	$ 52.12	$ 120.69	$ 68.57	131.57%

Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem Water District
Schedule RLM-2
Pages 1 Thru 3

PHASE-IN RATES STEP-THREE - SURCHARGE
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PROPOSED CHARGES & USAGE FEES	(B) STEP-THREE CHARGES & USAGE FEES	(C) STEP-THREE SURCHARGE
	RESIDENTIAL CUSTOMERS			
1	E1M1A - 5/8" & 3/4"	$ 30.43	$ 45.19	$ 14.75
	Commodity Usage (In Thousands Of Gallons)			
2	First Tier - First 4,000 Gals.	$ 2.6736	$ 3.9695	$ 1.2959
3	Second Tier - Next 6,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
4	Third Tier - Over 10,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
5	E1M1B - 1"	$ 74.45	$ 110.53	$ 36.08
	Commodity Usage (In Thousands Of Gallons)			
6	First Tier - First 4,000 Gals.	$ 2.6736	$ 3.9695	$ 1.2959
7	Second Tier - Next 36,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
8	Third Tier - Over 40,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
9	E1M1C - 1-1/2"	$ 150.02	$ 222.73	$ 72.71
	Commodity Usage (In Thousands Of Gallons)			
10	First Tier - First 109,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
11	Second Tier - Over 109,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
12	E1M1D - 2"	$ 240.11	$ 356.49	$ 116.38
	Commodity Usage (In Thousands Of Gallons)			
13	First Tier - First 185,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
14	Second Tier - Over 185,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
15	C1M1A - 5/8" & 3/4"	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)			
16	First Tier - First 4,000 Gals.	$ -	$ -	$ -
17	Second Tier - Next 9,000 Gals.			
18	Third Tier - Over 13,000 Gals.	$ -	$ -	$ -
19	C1M1B - 1"	$ -	$ -	$ -
	Commodity Usage (In Thousands Of Gallons)			
20	First Tier - First 45,000 Gals.	$ -	$ -	$ -
21	Second Tier - Over 45,000 Gals.	$ -	$ -	$ -
22	Total Residential Customers			
23	Total Residential Usage (In Thousands Of Gals)			
24	TOTAL RESIDENTIAL CUSTOMERS REVENUE			

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Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem Water District
Schedule RLM-2
Pages 1 Thru 3

PHASE-IN RATES STEP-THREE - SURCHARGE
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PROPOSED CHARGES & USAGE FEES	(B) STEP-THREE CHARGES & USAGE FEES	(C) STEP-THREE SURCHARGE
	COMMERCIAL CUSTOMERS			
25	E1M2A - 5/8" & 3/4"	$ 30.43	$ 45.19	$ 14.75
	Commodity Usage (In Thousands Of Gallons)			
26	First Tier - First 13,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
27	Second Tier - Over 13,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
28	E1M2B - 1"	$ 74.45	$ 110.53	$ 36.08
	Commodity Usage (In Thousands Of Gallons)			
29	First Tier - First 45,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
30	Second Tier - Over 45,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
31	E1M2C - 1-1/2"	$ 150.02	$ 222.73	$ 72.71
	Commodity Usage (In Thousands Of Gallons)			
32	First Tier - First 100,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
33	Second Tier - Over 100,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
34	E1M2D - 2"	$ 240.11	$ 356.49	$ 116.38
	Commodity Usage (In Thousands Of Gallons)			
35	First Tier - First 150,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
36	Second Tier - Over 150,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
37	E1M2E - 3"	$ 480.53	$ 713.44	$ 232.91
	Commodity Usage (In Thousands Of Gallons)			
38	First Tier - First 300,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
39	Second Tier - Over 300,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
40	E2M1A - 5/8" & 3/4"	$ 30.43	$ 45.19	$ 14.75
	Commodity Usage (In Thousands Of Gallons)			
41	First Tier - First 13,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
42	Second Tier - Over 13,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
43	E2M1B - 1"	$ 74.45	$ 110.53	$ 36.08
	Commodity Usage (In Thousands Of Gallons)			
44	First Tier - First 45,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
45	Second Tier - Over 45,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
46	E2M1C - 1-1/2"	$ 150.02	$ 222.73	$ 72.71
	Commodity Usage (In Thousands Of Gallons)			
47	First Tier - First 100,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
48	Second Tier - Over 100,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
49	E2M1D - 2"	$ 240.11	$ 356.49	$ 116.38
	Commodity Usage (In Thousands Of Gallons)			
50	First Tier - First 150,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
51	Second Tier - Over 150,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918

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Arizona-Amercian Water Company
Docket Nos. SW & W-01303A-09-0343
Test Year Ended December 31, 2008

Anthem Water District
Schedule RLM-2
Pages 1 Thru 3

PHASE-IN RATES STEP-THREE - SURCHARGE
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM WATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PROPOSED CHARGES & USAGE FEES	(B) STEP-THREE CHARGES & USAGE FEES	(C) STEP-THREE SURCHARGE
52	E2M1E - 3"	$ 480.53	$ 713.44	$ 232.91
	Commodity Usage (In Thousands Of Gallons)			
53	First Tier - First 300,000 Gals.	$ 4.1841	$ 6.2121	$ 2.0280
54	Second Tier - Over 300,000 Gals.	$ 5.3473	$ 7.9391	$ 2.5918
55	Total Commercial Customers			
56	Total Commercial Usage (In Thousands Of Gals)			
57	TOTAL COMMERCIAL CUSTOMERS REVENUE			
	OWU			
58	E7M2 - Anthem Wholesale (Phoenix) OWU	$ -	$ -	$ -
59	All Commodity Usage (In Thousands Of Gals)	$ 0.5202	$ 0.7723	$ 0.2521
60	TOTAL OWU CUSTOMER REVENUE			
	MISCELLANEOUS			
61	D7M1 - Anthem Treatco Portable Irrigation	$ -	$ -	$ -
62	All Commodity Usage (In Thousands Of Gals)	$ 2.4795	$ 3.6812	$ 1.2018
63	D7M2 - Anthem Treatco Non-Potable Irr.	$ -	$ -	$ -
64	All Commodity Usage (In Thousands Of Gals)	$ 2.4795	$ 3.6812	$ 1.2018
65	TOTAL SALE FOR MISCELLANEOUS CUSTOMER REVENUE			
	PRIVATE FIRE PROTECTION CUSTOMERS			
66	E6MO4 - 4"	$ 146.53	$ 217.55	$ 71.02
67	E6MO8 - 8"	$ 219.79	$ 326.33	$ 106.53
68	E6MO6 - 6"	$ 221.74	$ 329.21	$ 107.48
69	Commodity Usage (In Thousands Of Gallons)	No Charge	No Charge	

PHASE-IN RATES STEP-THREE - SURCHARGE
RATE DESIGN AND PROOF OF RECOMMENDED REVENUE
ANTHEM/AGUA FRIA WASTEWATER DISTRICT PROPOSED REVENUE

LINE NO.	DESCRIPTION	(A) PROPOSED CHARGES & USAGE FEES	(B) STEP-THREE CHARGES & USAGE FEES	(C) STEP-THREE SURCHARGE
	RESIDENTIAL CUSTOMERS			
1	E1MS1 - All Residential Customers	$ 44.80	$ 64.28	$ 19.48
2	Volume Charge - First 7,000 Gallons	$ 5.6161	$ 8.0585	$ 2.4424
	TOTAL RESIDENTIAL CUSTOMERS REVENUE			
	COMMERCIAL CUSTOMERS			
1	E2MS1 - Commercial 5/8" Customers	$ 44.80	$ 64.28	$ 19.48
2	Volume Charge - First 10,000 Gallons	$ 5.6161	$ 8.0585	$ 2.4424
3	E2MS2 - Commercial 3/4" Customers	$ 67.20	$ 96.42	$ 29.22
4	Volume Charge - First 15,000 Gallons	$ 5.6161	$ 8.0585	$ 2.4424
5	E2MS3 - Commercial 1" Customers	$ 89.70	$ 128.71	$ 39.01
6	Volume Charge - First 20,000 Gallons	$ 5.6161	$ 8.0585	$ 2.4424
7	E2MS4 - Commercial Large Customers	$ 179.33	$ 257.32	$ 77.99
8	Volume Charge - All Gallons	$ 5.6161	$ 8.0585	$ 2.4424
9	Total Customer Bills			
10	Total Customer Charged Usage			
11	TOTAL COMMERCIAL CUSTOMERS REVENUE			
	OWU CUSTOMERS			
12	E5M2 - Anthem Wholesale (Phoenix)			
13	Volume Charge - All Gallons	$ 5.1158	$ 7.3407	$ 2.2248

System 5/8 x 3/4 customers / avg. gallons	Current Rates (Dec. No. 71410 impact on rates)	Company Proposed Rates	Staff Stand Alone Rates	Staff Scenario #1	Staff Scenario #2	Staff Scenario #3	RUCO Stand Alone Rates
Paradise Valley *2,232 / 20,406*	$54.98 *($49.20 / 11.76%)*	Not Affected	Not Affected	$68.98 *$14.19 / 25.90%*	$73.02 *$18.23 / 33.27%*	$80.24 *$25.45 / 46.44%*	Not Affected
Havasu *6,582 / 9,796*	$50.09 *($36.59 / 36.90%)*	Not Affected	Not Affected	$32.39 *-$18.07 / -35.88%*	$34.29 *-$16.07 / -31.91%*	$23.69 *-$26.67 / -52.95%*	Not Affected
Mohave ■ Bullhead ■ Rio *14,428 / 8,070*	$18.01 $20.98 *($17.44 / 3.24%)*	Not Affected	Not Affected	$28.41 *$10.40 / 57.77%* $33.58 *$12.60 / 60.05%*	$30.41 *$12.40 / 68.87%* $35.63 *$14.65 / 69.81%*	$21.11 *$3.10 / 17.21%* $24.51 *$3.53 / 16.80%*	Not Affected
Tubac *451 / 11,740*	$58.59 *($50.04 / 17.08%)*	Not Affected	Not Affected	$38.81 *-$19.55 / -33.50%*	$41.15 *-$17.21 / -29.49%*	$27.70 *-$30.66 / -52.54%*	Not Affected
Anthem *4,869 / 9,616*	$37.22	**$74.59** ***$37.37 / 100.39%***	**$65.85** ***$28.63 / 76.89%***	$31.89 *-$33.96 / -51.57%*	$33.89 *-$31.96 / -48.53%*	$35.89 *-$29.96 / -45.50%*	**$64.63** ***$27.41 / 73.61%***
Agua Fria *27,417 / 7,679*	$30.42 *($24.16 / 25.93%)*	Not Affected	Not Affected	$27.53 *-$3.65 / -11.72%*	$29.53 *-$1.65 / -5.31%*	$31.53 *$0.35 / 1.11%*	Not Affected
Sun City 19,950 / 7,954	$16.73	**$21.37** ***$4.64 / 27.75%***	**$18.04** ***$1.31 / 7.80%***	$28.15 *$10.11 / 56.04%*	$25.15 *$7.11 / 39.41%*	$25.15 *$7.11 / 39.41%*	**$18.04** ***$1.31 / 7.80%***
Sun City West *14,052 / 6,702*	$32.42 *($19.51 / 66.11%)*	Not Affected	Not Affected	$25.33 *-$7.08 / -21.85%*	$22.33 *-$10.08 / -31.10%*	$22.33 *-$10.08 / -31.10%*	Not Affected

Arizona-American Rate Case – Proposed Rate Design Options

$XXX Indicates rates exceeding $5.00 increase from cost of service rates due to rate consolidation ("Unduly Burdened Districts")

$XXX Indicates rates exceeding a $5.00 savings from cost of service rates due to rate consolidation ("Unearned Benefit Districts")

$XXX Indicates consolidated rates falling between a $5.00 increase and a $5.00 decrease compared to cost of service rates

REVISED EXHIBIT B (May 18, 2010)

EXHIBIT
RUCO-15
ADMITTED

ARIZONA
AMERICAN WATER
2355 W. Pinnacle Peak Rd., Suite 300
Phoenix, AZ 85027

EXHIBIT
RUCO-16
ADMITTED

PRESORTED
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**WE CARE ABOUT WATER.
IT'S WHAT WE DO.**

**THIS IS AN IMPORTANT NOTICE
REGARDING YOUR RATES.**

PUBLIC NOTICE TO ALL CUSTOMERS OF ARIZONA-AMERICAN WATER COMPANY OF A HEARING ON RATE CONSOLIDATION PROPOSALS FOR POSSIBLE RATE CHANGES FOR UTILITY SERVICE IN ALL OF ITS ARIZONA DISTRICTS. DOCKET NOS. W-01303A-09-0343 AND SW-01303A-09-0343.

Summary

On July 2, 2009, Arizona-American Water Company ("Company") filed an application with the Arizona Corporation Commission ("Commission") for permanent revenue increases for its following districts: Anthem Water District, Sun City Water District, Anthem/ Agua Fria Wastewater District, Sun City Wastewater District, and Sun City West Wastewater District (the "Pending Rate Case"). In Decision No. 71410, dated December 8, 2009, the Commission approved a rate increase for the Company's Agua Fria Water District, Havasu Water District, Mohave Water District, Paradise Valley Water District, Tubac Water District, Sun City West Water District, and Mohave Wastewater District. In Decision No. 71410, **the Commission ordered the Commission's Utilities Division ("Staff") to propose at least one rate consolidation proposal in the Company's Pending Rate Case.** Pursuant to Decision No. 71410 and the schedule in the Pending Rate Case, Staff will file at least one rate consolidation proposal on or **before March 29, 2010. If approved by the Commission, this proposal may impact the rates of every Arizona-American water and wastewater customer, resulting in either an increase or a decrease.** Other parties to this case, including the Residential Utility Consumer Office, will also have an opportunity to analyze the application and make recommendations to the Commission. The Commission will determine the appropriate relief to be granted based on the evidence presented by the parties. The Commission is not bound by the proposals made by Commission Staff, Arizona-American, or any intervenors; therefore the final rates approved by the Commission may be higher or lower than the rates requested by Arizona-American in the Pending Rate Case and may or may not include a form of rate consolidation.

Rate Consolidation

Currently, the Company's rates are unique for each of its Arizona Districts and the existing rates reflect the differing cost to serve each geographic area. Alternatively, rate consolidation is the process of combining two or more districts for the purpose of combining the differing rates by some means into a single rate for comparable customers (i.e., residential customers). Therefore, instead of paying a different rate according to a specific District, all comparable customers in consolidated Districts would pay the same rate for the same water usage. Presently, Arizona-American's existing District-specific residential rates for typical use water customers result in average bills ranging from a low of $16.73 per month in Sun City Water District to a high of $58.59 per month in Tubac Water District.

How You Can View or Obtain a Copy of the Rate Consolidation Proposal

Copies of the rate consolidation proposal filed by Commission Staff will be available after March 29, 2010, from Arizona-American, 2355 W. Pinnacle Peak Road, Suite 300, Phoenix, AZ 85027; at the Commission's Docket Control Center, 1200 West Washington, Phoenix, Arizona, for public inspection during regular business hours; and on the internet via the Commission's website (www.azcc.gov) using the e-docket function.

Commission Public Hearing Information - Phase One

On September 24, 2009, the Commission scheduled Phase One of the hearing on this matter beginning April 19, 2010, at 10:00 a.m., at the Commission's offices, Hearing Room #1, 1200 West Washington Street, Phoenix, Arizona. During Phase One of the hearing, issues related to evidence presented by the Company regarding the revenue requirements for Anthem Water District, Sun City Water District, Anthem/Agua Fria Wastewater District, Sun City Wastewater District, and Sun City West Wastewater Districts will be addressed. During Phase One of the hearing, the issues of rate consolidation and rate design will not be addressed.

Commission Public Hearing Information - Phase Two

The Commission will hold Phase Two of the hearing on this matter beginning **May 18, 2010,** at 10:00 a.m., at the Commission's offices, 1200 West Washington, Hearing Room #1, Phoenix, Arizona. **During Phase Two of the hearing, the issues of rate consolidation and rate design for all of the Company's Districts will be addressed.**

Public comments on Rate Design and Rate Consolidation will be taken on the first day of Phase Two of the hearing. Other public comment times may be established by the Commission and posted on the Commission's website. Written public comments may be submitted by mailing a letter referencing Docket Nos. W-01303A-09-0343 and SW-01303A-09-0343 to Arizona Corporation Commission, Consumer Services Section, 1200 West Washington, Phoenix, AZ 85007, or by e-mail to Mailmaster@azcc.gov. For a form to use and instructions on how to e-mail comments to the Commission, go to http://www.azcc.gov/Divisions/Utilities/forms/PublicCommentForm.pdf. If you require assistance, you may contact the Consumer Services Section at 602-542-4251 or 1-800-222-7000.

About Intervention

The law provides for an open public hearing at which, under appropriate circumstances, interested parties may intervene. Any person or entity entitled by law to intervene and having a direct and substantial interest in the matter will be permitted to intervene. If you wish to intervene, you must file an original and 13 copies of a written motion to intervene with the Commission no later than **April 15, 2010** and send a copy of the motion to intervene to Arizona-American or its counsel and to all parties of record. Your motion to intervene must contain the following:

1. Your name, address, and telephone number and the name, address and telephone number of any person upon whom service of documents is to be made if not yourself;
2. A short statement of your interest in the proceeding (e.g., a customer of Arizona-American, a shareholder of Arizona-American, etc.); and
3. A statement certifying that you have mailed a copy of the motion to intervene to Arizona-American or its counsel and to all parties of record in the case.

The granting of motions to intervene shall be governed by A.A.C. R14-3-105, except that all motions to intervene must be filed on or before **April 15, 2010.**

A **pre-hearing conference** will be held on **April 16, 2010, commencing at 1:30 p.m.,** at the Commission's Phoenix offices, Hearing Room #1, for the purpose of scheduling witnesses and discussing process for both Phase One and Phase Two of the hearing. **All parties, including those who have requested intervention by the deadline of April 15, 2010, for the purpose of addressing rate design and rate consolidation issues, are required to attend the April 16, 2010, procedural conference.**

As part of the Pending Rate Case, **intervenors will have an opportunity to file** both **direct testimony and responsive testimony on rate design/rate consolidation,** due **May 3, 2010. This prefiled testimony must be responsive to the rate design and rate consolidation testimony filed by Staff and the Company, and may also raise new issues related to rate consolidation.**

If representation by counsel is required by Rule 31 of the Rules of the Arizona Supreme Court, intervention will be conditioned upon the intervenor obtaining counsel to represent the intervenor. For information about requesting intervention, visit the Commission's website at http://www.azcc.gov/divisions/utilities/forms/interven.pdf. The granting of intervention, among other things, entitles a party to present sworn evidence at hearing and to cross-examine other witnesses. However, failure to intervene will not preclude any interested person or entity from appearing at the hearing and providing public comment on the application or from filing written comments for the record of the case.

ADA/Equal Access Information

The Commission does not discriminate on the basis of disability in admission to its public meetings. Persons with a disability may request a reasonable accommodation such as a sign language interpreter, as well as request this document in an alternative format, by contacting the ADA Coordinator, Shaylin Bernal, at sabernal@azcc.gov., voice phone number 602-542-3931. Requests should be made as early as possible to allow time to arrange the accommodation.

LAKE HAVASU WATER DISTRICT

Frequently Asked Questions

ARIZONA
AMERICAN WATER

Q. What is the amount of the proposed water rate increase?

A. If the Arizona Corporation Commission (ACC) approves the company's request in full, an average residential customer bill will increase 38% to cover necessary increases in operation and maintenance expenses as well as investments made since 2002. Originally, Arizona American Water requested a 79% increase but during further review discovered that facilities from another water district were inadvertently included in the Lake Havasu Water District. Once the Company recognized this, the facilities were immediately removed from Lake Havasu significantly lowering the proposed water rate increase.

Q. Why is the proposed increase necessary?

A. There are two main reasons for the rate increase request. The largest part of our proposal is due to infrastructure investments such as water mains, wells, storage reservoirs and pumps that cost 4 million dollars. The increase also supports increased operating expenses such as labor, fuel, and chemicals.

To a lesser extent, the increase also supports the tank maintenance program (painting) which is designed to help increase efficiency and reduce future costs.

Q. What is the history of Arizona American Water in Lake Havasu and why is the company asking for the proposed increase all at once?

A. In 2002, Arizona American Water purchased the Lake Havasu Water District from Citizens Utilities. In 2003, the ACC imposed a three year moratorium on filing rate cases.

Aside from an increase in rates relating to the costs incurred by Arizona American Water to cover arsenic removal mandated by the federal government, Lake Havasu water rates have not increased since July 2004. The current proposal covers cost increases occurring from 2002–2007 except for the costs associated with arsenic treatment.

The Company could have filed for an increase in rates in January 2006, but postponed filing for an increase until May 2009, since we knew the community was already facing arsenic related rate increases in the interim.

(over, please)

Q. What steps can I take to conserve water and save money?

A. Most water is used outdoors, so it makes sense that you can realize the most savings outdoors. Some ideas are:

- adjust your irrigation system watering schedule so you water your plants deeper but less frequently. This pulls the plant roots away from the surface and makes a healthier plant.
- adjust your timer with each season (quarterly) so you're getting the right amount of water on your plants at the right time of year.
- turn your system off or to bypass when it rains.
- set your irrigation timer to water in the early morning or late evening to cut down on evaporation.
- adjust your sprayers so they are only watering plants not the sidewalk.
- keep your yard maintained, weeds fight your grass and plants for water.

Q. What can we do?

A. One future possibility is rate consolidation, which means costs from all our customers in the state of Arizona would be shared. This would alleviate high rate spikes for small communities that need significant or costly improvements and or equipment. Arizona American Water supports rate consolidation. For the first time, a member of the Arizona Corporation Commission (Chairwoman Mayes) has requested information from us regarding rate consolidation.

ARIZONA
AMERICAN WATER

WE CARE ABOUT WATER. IT'S WHAT WE DO.

(800) 383-0834 • www.arizonaamwater.com

EXHIBIT
RUCO-17
ADMITTED

ARIZONA-AMERICAN WATER COMPANY

DOCKET NO. W-01303A-09-0343
AND DOCKET NO. SW-01303A-09-0343

DIRECT TESTIMONY

OF

WILLIAM A. RIGSBY

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

MARCH 8, 2010

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INFRASTRUCTURE IMPROVEMENT SURCHARGE 3

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My Name is William A. Rigsby. I am a Public Utilities Analyst V employed by the Residential Utility Consumer Office ("RUCO") located at 1110 W. Washington, Suite 220, Phoenix, Arizona 85007.

Q. Please describe your qualifications in the field of utility regulation and your educational background.

A. I have been involved with utility regulation in Arizona since 1994. During that period of time I have worked as a utilities rate analyst for both the Arizona Corporation Commission ("ACC" or "Commission") and for RUCO. I hold a Bachelor of Science degree in the field of finance from Arizona State University and a Master of Business Administration degree, with an emphasis in accounting, from the University of Phoenix. Appendix 1, which is attached to my direct testimony on the cost of capital issues in this case, further describes my educational background and also includes a list of the rate cases and regulatory matters that I have been involved with.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present RUCO's position on Arizona-American Water Company's ("AAWC" or "Company") request for an infrastructure improvement surcharge for the Company's Sun City Water

District, which AAWC wants to expand for all of its operating systems in Arizona. The Company-proposed infrastructure improvement surcharge is explained in the direct testimony of AAWC witness Christopher C. Buls and is part of AAWC's application for a permanent rate increase ("Application") for the Company's Anthem and Sun City Water Districts and for the Company's Anthem/Agua Fria, Sun City and Sun City West Wastewater Districts.

SUMMARY OF TESTIMONY AND RECOMMENDATIONS

Q. Briefly summarize how your direct testimony is organized.

A. My direct testimony is organized into three sections. First, the introduction I have just presented and second, the summary of my testimony that I am about to give. Third, I will present RUCO's position on the Company proposed infrastructure improvement surcharge.

Q. Please summarize RUCO's recommendation on the Company-proposed infrastructure improvement surcharge.

A. For the reasons that are explained below, RUCO is recommending that the Commission reject the Company-proposed infrastructure improvement surcharge.

INFRASTRUCTURE IMPROVEMENT SURCHARGE

Q. Have you reviewed the direct testimony of AAWC witness Christopher C. Buls?

A. Yes. I have reviewed Mr. Buls testimony which addresses AAWC's request for an infrastructure improvement charge for the Company's Sun City Water District.

Q. Briefly explain AAWC's request.

A. According to Mr. Buls' testimony, AAWC is seeking Commission approval of a surcharge mechanism that would recover the costs of certain plant additions placed into service between permanent rate case proceedings. Mr. Buls states that the selected plant additions would include replacement mains, hydrants, meter, (including AMR replacements), services, tanks, and booster stations. AAWC also seeks to include infrastructure relocations as a selected addition that would be eligible for cost recovery under the Company-proposed surcharge.

Q. How would the Company-proposed recovery mechanism work?

A. Mr. Buls explains that the Company would analyze the qualifying assets placed into service twice a year. The calculation of the actual surcharge would be based on factors that are established in AAWC's most recent rate case before the ACC. The Company would essentially calculate a required level of revenue associated with the plant additions as it would in

a general rate case proceeding in order to arrive at the surcharge amount. The surcharge would then be revised as needed during general rate case filings. The Company further proposes that Commission Staff be required to review the Company's regular infrastructure surcharge requests within a thirty-day period and that the Commission vote on it at the next open meeting. Mr. Buls states that the ACC Staff review is only intended to be a check on the mechanics of the infrastructure surcharge mechanism, and not a full prudency review of the plant assets being placed into service. The prudency of the plant improvements would be determined in a future rate case proceeding.

Q. What is RUCO's recommendation regarding the Company's infrastructure improvement surcharge?

A. RUCO recommends that the Commission reject the Company-proposed infrastructure improvement surcharge.

Q. Why is RUCO recommending that the Commission reject the Company-proposed infrastructure improvement surcharge?

A. RUCO has consistently opposed the use of cost recovery mechanisms that do not allow for the type of thorough analysis that takes place in a general rate case proceeding. Furthermore, AAWC is proposing that it be permitted to earn a return on and a return of the costs of plant assets that are financed through non-investor supplied funds. In other words, AAWC

wants captive ratepayers to pay the Company a return on money that was supplied not by investors, but by the ratepayers themselves. An onerous arrangement that shifts the risk associated with the plant additions away entirely from AAWC, which will not have any of its own invested capital in the plant additions, and places the risk entirely on the backs of the Company's ratepayers. Quite simply, what the Company is proposing here is nothing more than a surcharge that is identical to the Arsenic Cost Recovery Mechanism ("ACRM") which the Commission approved in the past to allow Arizona water providers to recover the costs associated with meeting more stringent arsenic level standards. The fact that water providers had to comply with new federal regulations was an extraordinary circumstance that required extraordinary ratemaking.

Q. Why are the circumstances revolving around AAWC's infrastructure improvement surcharge request different from the circumstances that led to the Commission's approval of the ACRM?

A. First, AAWC is seeking immediate recovery of certain plant additions that would normally be recovered in a general rater case proceeding. There is nothing extraordinary about these types of plant additions. In fact, the use of non-investor supplied capital to finance the types of plant additions being proposed by AAWC would normally be treated as a contribution that provides no return on or return of the funds that were not supplied by the Company's investors.

Second, there is no federal or state requirement that requires the Commission to allow for recovery of plant additions placed into service between general rate case proceedings.

Q. Why is RUCO opposed to the implementation of ACRM-like mechanisms for the type of cost recovery that AAWC is seeking in this case?

A. There are several reasons why RUCO has consistently opposed the use of ACRM-like mechanisms. Adjustor mechanisms are extraordinary rate recovery devices that are permitted for certain narrow circumstances. The ACRM is a type of adjustor mechanism that was specifically designed to address a one-time event that impacted dozens of Arizona water companies simultaneously.

Q. What was the original intent for the ACRM?

A. The original ACRM was approved by the Commission to give water providers in Arizona the ability to recover the costs associated with meeting the U.S. Environmental Protection Agency's ("EPA") revised drinking water arsenic standard of 10 parts per billion. The EPA's requirement that water providers comply with the more stringent standard was in effect an unfunded mandate from the federal government. Multiple Arizona water providers had no choice but to either comply with the EPA's rule or face the consequences of being in violation of it. This being the case, representatives from the state's investor owned water companies,

ACC Staff, and RUCO developed the present ACRM which allows water utilities to comply with the new EPA standard through a surcharge that was established within the context of a rate case proceeding where a constitutional finding of a utility's fair value has been established. The key point here is that the EPA's revised arsenic standard represented an extraordinary circumstance that neither Arizona's government, which includes the Commission, or the state's water companies, either investor owned or municipal, had any control over, and that would be impacting a number of water utilities simultaneously.

Q. Are there any similar mandates in regard to the infrastructure improvements covered in AAWC's request?

A. No. There is no federal, or for that matter any other, mandates requiring that AAWC be required to construct the types infrastructure improvements covered in AAWC's request. Nor are there any other extraordinary circumstances that would warrant the approval of an ACRM-like mechanism in this case. As I stated earlier, under normal ratemaking procedures the funds collected from non-investors would be treated as a contribution-in-aid-of-construction that the company would not earn a return on or recover through rates. For these reasons and the reasons stated above, RUCO believes that the Company's request should be denied.

Q. Does your silence on any of the issues, matters or findings addressed in the testimony of any of the witnesses for AAWC constitute your acceptance of their positions on such issues, matters or findings?

A. No, it does not.

Q. Does this conclude your testimony on AAWC?

A. Yes, it does.

EXHIBIT
RUCO-18
ADMITTED

ARIZONA-AMERICAN WATER COMPANY

DOCKET NO. W-01303A-09-0343
AND DOCKET NO. SW-01303A-09-0343

SURREBUTTAL TESTIMONY

OF

WILLIAM A. RIGSBY

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

APRIL 15, 2010

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REBUTTAL TO ANTHEM COMMUNITY COUNCIL 6

INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My Name is William A. Rigsby. I am a Public Utilities Analyst V employed by the Residential Utility Consumer Office ("RUCO") located at 1110 W. Washington, Suite 220, Phoenix, Arizona 85007.

Q. Please state the purpose of your surrebuttal testimony.

A. The purpose of my surrebuttal testimony is to respond to Arizona-American Water Company, Inc.'s ("AAWC" or "Company") witness Paul G. Townsley's rebuttal testimony filed on March 22, 2010. My surrebuttal testimony will address the Company-proposed infrastructure improvement surcharge for the AAWC's Sun City Water District. Furthermore, the Company has stated that if rate consolidation is adopted by the ACC in this proceeding it proposes to expand the infrastructure improvement surcharge for all of its districts in Arizona.

Q. Have you filed any prior testimony in this case on behalf of RUCO?

A. Yes, on March 8, 2010, I filed direct testimony with the Commission on this specific issue. I also filed, under separate cover, direct testimony on the cost of capital issues in this case.

...

Q. Are you also filing surrebuttal testimony on the cost of capital issues in this case?

A. Yes. I have also filed a separate piece of surrebuttal testimony on the cost of capital issues in this case.

Q. Will RUCO be filing surrebuttal testimony on the rate base and operating income issues in this case?

A. Yes. RUCO's outside consultant Mr. Ralph Smith, will file surrebuttal testimony on the rate base and operating income issues in this case.

Q. Is RUCO filing rate design testimony in this proceeding?

A. Yes. In accordance with the Administrative Law Judge's Procedural Order dated March 18, 2010, both RUCO Director Jodi Jerich, Esq. and RUCO analyst Rodney L. Moore will provide direct testimony on RUCO's rate consolidation policy and RUCO's recommended rate design respectively on May 3, 2010. Ms. Jerich and Mr. Moore will offer their surrebuttal testimony, on rate consolidation policy and rate design, orally at the evidentiary hearing scheduled for May 18, 2010.

Q. How is your surrebuttal testimony organized?

A. My surrebuttal testimony contains four parts: the introduction that I have just presented; a summary of Mr. Townsley's rebuttal testimony; a section that discusses RUCO's surrebuttal position on the Company-proposed

infrastructure improvement surcharge; and a response to the testimony of Anthem Community Council's witness, Dan Neidlinger.

SUMMARY OF AAWC'S REBUTTAL TESTIMONY

Q. Have you reviewed the rebuttal testimony of Mr. Paul G. Townsley that addresses the Company-proposed infrastructure improvement surcharge for the AAWC's Sun City Water District?

A. Yes. I have reviewed Mr. Townsley's rebuttal testimony that addresses the Company-proposed infrastructure improvement surcharge for AAWC's Sun City Water District.

Q. Please summarize the Company's rebuttal testimony.

A. In his rebuttal testimony, Mr. Townsley adopts the direct testimony of Company witness Christopher C. Buls who originally addressed the infrastructure improvement surcharge for the Sun City Water District. Mr. Townsley refers to the Company-proposed surcharge as an Infrastructure System Replacement Surcharge ("ISRS") and states that I was the only witness that responded to the Company's request and the only witness that recommended that the Company-proposed ISRS be rejected by the Commission. Mr. Townsley disagrees with RUCO's recommendation to reject the ISRS and also disagrees with my statements that the plant additions would be financed by non-investor supplied funds. Mr. Townsley

continues to advocate that the ISRS be expanded to all of the Company's Districts if the Commission orders full rate consolidation.

INFRASTRUCTURE SYSTEM REPLACEMENT SURCHARGE

Q. Do you agree with Mr. Townsley's position that the costs for plant additions, which AAWC would be recovering through the Company-proposed ISRS, would be funded by investor supplied capital?

A. Technically, yes. I have reconsidered my position on this point and I agree with Mr. Townsley that the costs for plant additions would initially be funded up front by investor supplied capital. However, funds collected through the ISRS would repay the Company for its up-front investment for routine plant additions.

Q. Does RUCO still recommend that the Commission reject the Company-proposed ISRS?

A. Yes. With the exception of those potions of my direct testimony regarding non-investor supplied capital addressed above, RUCO believes that all of the reasons RUCO provided for rejecting the Company-proposed ISRS are valid and continues to advocate that the Commission should reject the ISRS. Nothing in Mr. Townsley's rebuttal testimony changes RUCO's position.

Q. Do you agree with Mr. Townsley's statement that you were the only witness that responded to the Company's request, and the only witness that recommended that the Company-proposed ISRS be rejected by the Commission?

A. Yes and No. When Mr. Townsley filed his rebuttal testimony, I was the only witness in this proceeding to address the ISRS and to recommend that it be rejected by the Commission. However, since that time ACC Staff witness Mr. Jeffery Michlik has filed direct testimony on rate design which addresses the ISRS issue and also recommends that the Company-proposed ISRS be rejected by the Commission. Mr. Michlik states that "The Company has offered no explanation why these ordinary infrastructure improvements or replacements should be handled in this extraordinary fashion." Mr. Michlik goes on to say that ACC Staff "believes that such ordinary infrastructure improvements should be handled in the normal fashion through inclusion in rate base in future rate filings as appropriate." Mr. Michlek further states that "The Commission has rejected such requests for extraordinary treatment in the past." In short Mr. Michlek's testimony echoes the reasons that I presented in my direct testimony for rejection of the Company-proposed ISRS.

...

Q. So RUCO still recommends that the Commission reject the Company-proposed ISRS?

A. Yes. RUCO's position has not changed. As I stated in my direct testimony, there is no federal, or for that matter any other, mandates requiring that AAWC be required to construct the types infrastructure improvements that would be covered under the ISRS. Nor are there any other extraordinary circumstances that would warrant the approval of an ACRM-like mechanism that would allow the Company to recover costs associated with routine plant additions that would normally be subject to much closer scrutiny during a general rate case proceeding.

REBUTTAL TO ANTHEM COMMUNITY COUNCIL

Q. What is your response to Anthem Community Council's witness Daniel Neidlinger's testimony that the Council intends to challenge the legal basis for AAWC's proposed inclusion of the March 2008 $20.2 million AIAC payment to Pulte Homes in rate base for ratemaking purposes in this proceeding?

A. Like Mr. Neidlinger, I am not an attorney and able to give a legal opinion. RUCO has not challenged the recovery of the refunds or the rate base treatment of the assets in its direct case. However, RUCO has instructed me that RUCO reserves the right to modify its position on this issue should the legal argument prove valid. RUCO is in the process of doing its own investigation into the facts and circumstances of that argument and may or

may not supplement its testimony depending on the results of its investigation.

Q. Does your silence on any of the issues, matters or findings addressed in the rebuttal testimony of any of the witnesses for AAWC constitute your acceptance of their positions on such issues, matters or findings?

A. No, it does not.

Q. Does this conclude your surrebuttal testimony on the Company-proposed ISRS?

A. Yes, it does.

EXHIBIT
RU 60-80
ADMITTED

ARIZONA-AMERICAN WATER COMPANY

DOCKET NO. W-01303A-09-0343
AND DOCKET NO. SW-01303A-09-0343

REVISED SURREBUTTAL TESTIMONY

OF

WILLIAM A. RIGSBY

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

APRIL 16, 2010

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Q. Have you filed any prior testimony in this case on behalf of RUCO?

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A. Yes. With the exception of those potions of my direct testimony regarding non-investor supplied capital addressed above, RUCO believes that all of the reasons RUCO provided for rejecting the Company-proposed ISRS are valid and continues to advocate that the Commission should reject the ISRS. Nothing in Mr. Townsley's rebuttal testimony changes RUCO's position.

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A. Yes. RUCO's position has not changed. As I stated in my direct testimony, there is no federal, or for that matter any other, mandates requiring that AAWC be required to construct the types infrastructure improvements that would be covered under the ISRS. Nor are there any other extraordinary circumstances that would warrant the approval of an ACRM-like mechanism that would allow the Company to recover costs associated with routine plant additions that would normally be subject to much closer scrutiny during a general rate case proceeding.

REBUTTAL TO ANTHEM COMMUNITY COUNCIL

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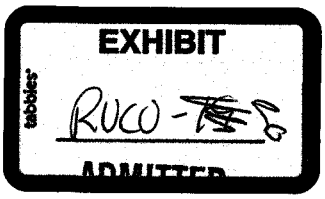
argument and may or may not supplement its testimony depending on the results of its investigation.

Q. Does your silence on any of the issues, matters or findings addressed in the rebuttal testimony of any of the witnesses for AAWC constitute your acceptance of their positions on such issues, matters or findings?

A. No, it does not.

Q. Does this conclude your surrebuttal testimony on the Company-proposed ISRS and the Anthem Community Council's challenge of AAWC's proposed rate base treatment of the March 2008 $20.2 million AIAC payment to Pulte Homes?

A. Yes, it does.



National Association of State Utility Consumer Advocates
RESOLUTION

Discouraging State Regulatory Commissions from Adopting Automatic Adjustment Charges for Water Company Infrastructure Costs

WHEREAS, certain regulated water companies have recently proposed mechanisms for automatically increasing water rates, prior to regulatory review, based upon isolated items of expense related to infrastructure projects; and
WHEREAS, the National Association of State Utility Consumer Advocates (NASUCA) believes that public interest is still best served by rate of return regulation of investor-owned water companies and that such automatic adjustment mechanisms contradict several sound rate of return ratemaking principles, including the matching principle, because increases to items of rate base are recognized far outside of the test year from which all other rate base, as well as revenues, expenses, and cost of capital items that are used when calculating rates, allowing 'piecemeal ratemaking' and preventing the recognition of any simultaneous offsetting reductions in other items; and

WHEREAS, automatic adjustment mechanisms also circumvent regulatory review of increases to rate base for prudence and reasonableness; and

WHEREAS, automatic adjustment mechanisms further create bad public policy by eliminating the built-in regulatory incentive to control costs between rate cases and, generates incentives to increase spending in order to avoid reduction of the surcharge which occurs if the water company's authorized return is reached; and

WHEREAS, when an automatic adjustment clause is adopted, rate stability is reduced and proper price signals are distorted by frequent rate increases, and no convincing evidence has been shown to support the claim that the frequency of rate case proceedings is reduced by such clauses; and

WHEREAS, special incentives are not needed in order ensure adequate water quality, pressure, and a proper reduction of service interruptions; and

WHEREAS, automatic adjustment mechanisms can inappropriately reward water companies that have imprudently fallen behind in infrastructure improvements; and

WHEREAS, it is inappropriate to tilt the regulatory balance against consumers and shift business risk away from water companies simply for the purpose of creating an incentive for these companies to fulfill their basic obligation to provide safe and adequate service;

THEREFORE, BE IT RESOLVED, that NASUCA strongly recommends state legislatures and state public utility commissions avoid the implementation of automatic adjustments charges for water company infrastructure costs; and

BE IT FURTHER RESOLVED, that NASUCA authorizes its Executive Committee to develop specific positions and to take appropriate actions consistent with the terms of this resolution. The Executive Committee shall notify the membership of any action taken pursuant to this resolution.

Approved by NASUCA:

June, 1999, Baltimore, Maryland

Submitted By:

NASUCA Ad Hoc Water Committee

Christine Maloni Hoover, PA, Chair
Wes Blakley, IN
Robert Brabston, NJ
John Coffman, MO
Brian Gallagher, DE
Donald Rogers, MD
Dale Stransky, NV
James Warden, Jr., NY

EXHIBIT
RUCO-21
ADMITTED

ARIZONA-AMERICAN WATER COMPANY

DOCKET NO. W-01303A-09-0343
AND DOCKET NO. SW-01303A-09-0343

RATE CONSOLIDATION DIRECT TESTIMONY

OF

JODI A. JERICH

ON BEHALF OF

THE

RESIDENTIAL UTILITY CONSUMER OFFICE

MAY 3, 2010

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RATE CONSOLIDATION 3

INTRODUCTION

Q. Please state your name, occupation and business address for the record.

A. My name is Jodi Jerich. I am the Director of the Arizona Residential Utility Consumer Office ("RUCO"). My business address is 1110 W. Washington Street, Suite 220, Phoenix, Arizona 85007.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain RUCO's position on rate consolidation in this docket.

RATE CONSOLIDATION

Q. What is "rate consolidation"?

A. Rate consolidation is also commonly known as "single tariff pricing". In addition, the terms "uniform rates", "standard tariff rates", "unified rates" and "rate equalization" are sometimes used. My testimony will refer to this concept as rate consolidation.

Rate consolidation is the use of a unified rate structure for multiple water utility systems that are owned and operated by a single utility, but that may not be contiguous or physically interconnected. Through rate consolidation, all customers of the utility pay the same rate for service, even though the individual systems providing service may vary in terms of the number of customers served, operating characteristics and stand-alone costs.

Q. Have you testified regarding RUCO's position on rate consolidation in other cases before the Commission?

A. Yes. I provided rate consolidation policy testimony in two pending rate cases: (1) Arizona Water (Docket No. W-014457A-08-0440); and (2) Bella Vista (W-01303A-09-0414).

Q. What is RUCO's position on rate consolidation in this docket?

A. RUCO opposes rate consolidation for the Arizona-American systems.

Q. Please provide a summary explanation why RUCO opposes rate consolidation in this docket.

A. I will explain RUCO's reasoning in greater detail later in my testimony. But, in summary, RUCO opposes rate consolidation ***in this docket*** because:

1. Potential legal infirmity to consolidate some systems whose fair value rate base was calculated using a 2007 test year while others are based on a 2008 test year.

2. Inability to design consolidated rates that provide a "revenue neutral change to the rate design of all the Company's water districts…".[1]

[1] See Decision No. 71410, p. 78, lines 14-19.

3. Strong opposition against rate consolidation by customers who would have to subsidize rates of ratepayers in other districts.

4. Lack of interest in rate consolidation by customers who would immediately benefit from rate consolidation.

5. Stark distortion of price signals that work against the Commission's important goal of water conservation.

6. Lack of a sufficiently attractive public policy reason to deviate from cost of service rate design.

7. Existence of certain contractual rates for certain ratepayer classes in certain districts makes rate consolidation complex if not impractical.[2]

Q. In your opinion, what should be the Commission's starting point regarding rate design?

A. As I have testified in Arizona Water and Bella Vista, RUCO contends that separate rates for separate systems respect the principle of traditional cost of service ratemaking and ensure that those who use the utility services pay for them. In most cases, RUCO has taken the position that the "cost causer should be the cost payer."

[2] See Michlik Direct Testimony, p. 1819.

RUCO believes that cost of service ratemaking should be the presumptive rule for the Commission. Only when the Commission can identify case-specific public policies in support of rate consolidation should it approve a rate design that deviates from cost of service.

RUCO would oppose any routine approval of rate consolidation proposals and would encourage the Commission to review rate consolidation proposals on a case-by-case basis.

Q. Why has RUCO opposed consolidation in the past?

A. Previously, most rate consolidation proposals have been limited to the consolidation of two systems – typically a large system and a small one. In 2004, both RUCO and Staff opposed Arizona Water's request to consolidate the commodity rates for the Apache Junction and Superior systems. At that time, Apache Junction had 16,093 customers and Superior had 1,288 customers. RUCO and Staff opposed this consolidation because of the traditional ratemaking principle that individual system rates should reflect their specific system costs (Decision No. 66849 at p. 28).

Q. Has the Commission rejected rate consolidation proposals in the past?

A. Yes. For example, the Commission rejected Arizona Water's proposal to consolidate the base rate and ACRM for the Sedona and Rimrock systems in its Northern Group (Decision No. 66400). Furthermore, the Commission has rejected

other Arizona Water rate consolidation proposals. (See Decision No. 58120 at 33-34 and Decision No. 64282 at 20-21.)

Q. Has the Commission approved rate consolidation proposals in the past?

A. Yes. From past history, it appears that the Commission has been most persuaded to approve rate consolidation when two systems are either being physically interconnected or close enough geographically such that interconnection has been contemplated.

The Commission has approved Arizona Water Company's proposal consolidation for ratemaking purposes of the Sedona and Valley Vista systems as well as the consolidation of the Apache Junction and Superior systems.[3]

In 1999, the Commission approved the merger and rate consolidation of Bella Vista Water and Nicksville Water (Decision No. 61730). The Commission found, "The merger of Nicksville into Bella Vista will result in cost savings from the elimination of duplicate books, records and reports and simplified administration and the customers of both systems will benefit from interconnection." RUCO supported rate consolidation in that docket.

[3] "...we believe it is appropriate to allow the first step of consolidation at this time in order to recognize the interconnection of the systems and to minimize the "rate shock" that may otherwise be experienced by customers in the Superior system." (Decision No. 66849 at 28)

Finally, in 2006, the Commission approved the merger of the seven (7) McLain Water systems into two systems – Northern Sunrise Water and Southern Sunrise Water (Decision No. 68826).

Q. Does this history suggest that the Commission will look at rate consolidation on a case-by-case basis?

A. Yes. Every Order of the Commission that has approved any form of consolidation has been highly fact specific.

Q. What are the policy arguments in favor of rate consolidation?

A. In the pending Arizona Water and Bella Vista rate cases, I discussed the policies favoring rate consolidation at length. Included with my testimony in these cases, I referenced a copy of a 1999 joint publication by the U.S. Environmental Protection Agency ("EPA") and the National Association of Regulatory Utility Commissioners ("NARUC"). I attach the same document to my testimony in this docket as Exhibit A.

The EPA-NARUC publication offers several arguments in support of rate consolidation. RUCO lists the arguments it finds most persuasive.

1. Mitigates rate shock to utility customers.
2. Lowers administrative costs to the utilities.
3. Provides incentives for utility regionalization and consolidation.
4. Lowers administrative cost to the Commission.

5. Encourages larger utility companies to acquire small, struggling utilities.

Q. What are some policy arguments in opposition to rate consolidation?

A. The EPA-NARUC publication also offers several arguments in opposition to rate consolidation. RUCO lists the arguments it finds most persuasive.

1. Conflicts with cost of service principles.
2. Provides subsidies to some high cost customers at the expense of other customers.
3. Distorts price signals.
4. Discourages water conservation.

Q. Please explain the reasons RUCO opposes rate consolidation in this docket.

A. As stated earlier, RUCO opposes rate consolidation in this docket for the following reasons:

Different Test Years

First, RUCO questions the legal soundness of consolidating rates for several districts using two different test years. Plant, operating revenue and operating expenses for Sun City Water, Anthem Water, Sun City Wastewater, Sun City West Wastewater and Agua Fria Wastewater will be based on a 2008 test year. All other districts had their fair value rate base calculated using a 2007 test year.

The Arizona Constitution charges the Commission to "ascertain the fair value of the property" of a utility when setting rates. (Ariz. Const. Art. XV, § 14) It is well settled that the Commission has broad authority in this calculation. And, admittedly, RUCO can find no example or case law that addresses this particular question. Nonetheless, while this situation poses a new legal question, RUCO does not believe it is legal to mix test years when ascertaining the fair value of property.

The Commission's Rules define the filing requirements in support of a utility's rate application. R14-2-13 et al. Among those requirements, a utility must choose a test year. A test year is defined as "the one-year historical period used in determining rate base, operating income and rate of return. The end of the test year shall be the most recent practical date available prior to the filing." (R14-2-103(A)(p)). The test year is used in ascertaining a utility's revenue requirement.

In the present set of circumstances the Commission will be considering consolidating rates between several systems with different test years and different revenue requirements. The result would truly be rendering the fair value requirement meaningless since ultimately the Commission would be applying revenue requirements to different test years. Hence, RUCO believes such an application would violate Arizona's fair value requirement.

In the past, to the best of RUCO's knowledge, every time the Commission has approved rate consolidation, all the affected systems had the same test year. When

the Commission approved consolidated rates upon the merger of Bella Vista Water and Nicksville Water, the application brought both systems before the Commission using the same test year. (Decision No. 61730) The Applicant couldn't pick one test year for one system and a more favorable test year for the other system.

In the most recent Arizona-American rate case, Decision No. 71410, the Commission approved a weighted average cost of capitol of 7.33%, a cost of equity of 9.9% a cost of debt of 5.46% for the districts that are not currently before it in this docket. It is unknown if the Commission will make the same determinations for the systems that are before it in this case. Furthermore, Decision No. 71410 made several operating income adjustments to all of the districts before it at that time including labor expense, waste disposal expense, achievement incentive pay, water testing, tank maintenance, meter depreciation and rate case expense. Again, it is not known whether the Commission will make the same adjustments and to the same degree.

In Scates v. ACC, 118 Ariz. 531 (App. 1978)), the Commission approved charges for 64% of costs for Mountain States Telephone when it already had approved rates covering 41% of the company's costs in a proceeding 10 months earlier. The crux of Scates is that the Commission failed to examine the company's financial condition when approving the subsequent tariffs for the remaining 64% of the utility's costs. That is not the case here. However, the Scates court notes, "...such piecemeal approach is fraught with potential abuse. Such a practice must inevitably serve both

as an incentive for utilities to seek rate increases each time costs in a particular area rise, and as a disincentive for achieving countervailing economies on the same or other areas of their operations." (Scates at 534)

This cautionary note found in Scates is instructive to the facts at hand in this case. If Arizona-American had used a 2007 test year for the Anthem and Sun City water systems and the Sun City, Sun City West and Agua Fria wastewater systems instead of its 2008 test year, then all the systems would have been placed before the Commission on the same footing. The rate base, revenues and expenses all would have been reflective of the same time period. Furthermore, the time delay between the findings regarding WACC, ROE, debt and operating income adjustments in Decision No. 71410 and the current rate case may result in new economic or marketplace forces that compel the Commission to make findings for these ratemaking elements that differ from those made in the earlier Decision.

Revenue Neutrality

The Commission, in Decision No. 71410 stated, "This docket should remain open for the limited purpose of consolidation in the Company's next rate case with a separate docket in which a revenue neutral change to rate design **of all the Company's water districts** or other appropriate proposals ...may be considered." (Emphasis added, Decision No. 71410, FOF 116)

RUCO believes this language means that the revenue neutrality requirement applies to each individual system. If the Commission had intended this requirement to apply Company-wide, it would have made clear that the revenue neutrality requirement applied to the *Company's* revenue requirement and ***not*** to the requirement "of *all* the Company's water *districts*". The Commission is bound to the language of its Decision. However, the Commission could choose to re-open Decision No. 71410 and change its wording. But until that happens, RUCO believes the language speaks for itself and that revenue neutrality applies to each individual system.

If each system must retain its individual revenue requirement as established by Decision No. 71410, then it is mathematically impossible to create a consolidated rate design for all the water and wastewater districts.

Ratepayer Opposition to Rate Consolidation

RUCO has received numerous letters and emails from residential ratepayers in opposition to rate consolidation. In fact, the issue of rate consolidation in this rate case has generated more correspondence than any other issue during my tenure as RUCO's Director. This opposition is most strongly expressed by ratepayers in the Sun City system. Not only have these ratepayers complained to RUCO, but they have also filed volumes of constituent letters with the Commission. When the Commission held a public comment meeting in Anthem, Sun City residents traveled all the way across the Valley in order to attend and to voice their opposition to rate

consolidation. Clearly, the Sun City ratepayers strongly object to subsidizing Anthem's costs.

Ratepayer Ambivalence to Rate Consolidation

It is clear that any consolidated rate design would be to the immediate benefit of the Anthem ratepayers. However, RUCO has not received any letters or emails supporting rate consolidation from these ratepayers. During the Anthem public comment hearing, RUCO only remembers one person even mentioning the possibility of rate consolidation as one possible option to reduce the proposed rate increase.

In addition to Anthem's lack of support for a rate consolidation proposal, it appears that Anthem may even be unsupportive of the general concept of rate consolidation. At the public comment hearing, many Anthem residents voiced their objection to their wastewater system being consolidated with the Agua Fria wastewater system. They clearly did not like the fact a portion of the Northwest Treatment Facility is included in their wastewater rates when Anthem is not connected to that wastewater treatment plant. That plant, located within the boundaries of the Sun City West system, provides service to Agua Fria residents.

Distorted Price Signals Contrary to Goal of Water Conservation

In addition to cost of service concerns, rate consolidation can have the unfortunate, negative consequence of contradicting the Commission's important goal of water conservation. Rate consolidation is arguably "at odds with water conservation."[4] Water is not the same everywhere in the state. Different systems have different challenges with water quality or water quantity issues. Full rate consolidation ignores the harsh reality of the difficulty of delivery of adequate and safe water in certain areas in Arizona. By consolidating rates and allowing a district with high costs to enjoy subsidized rates, the Commission distorts the true price of water delivery service for those customers. By distorting the price signals, customers no longer have the incentive to use their water wisely.

There are vastly different water consumption patterns among the residential ratepayers of the Arizona-American water systems. The average 5/8 x 3/4 inch monthly water consumption ranges from 6,702 gallons in Sun City West to a whopping 20,406 gallons in Paradise Valley! In Paradise Valley, there are 130 ***residential*** customers who have an average monthly water consumption of 130,811 gallons!

Aside from water consumption, these systems have different water delivery challenges. Some systems are on ground water. Others take surface water. Some

[4] Id. at 5.

systems are inside an Active Management Area. Others are not.

The Commission has stated time and time again that water conservation is one of its top priorities. In this case, consolidated rates include a consolidated commodity rate. RUCO does not believe that the benefits of consolidation justify water prices that do not accurately reflect the cost of water among these diverse systems.

While it is true that the biggest user of water – Paradise Valley – would bear more costs at the initial stage of rate consolidation, these residents would enjoy the benefit of other systems – like Tubac – picking up some of their costs in the future. This would lead to the bizarre result of retired ratepayers living on fixed incomes picking up costs for high income ratepayers.

Existing Contracts for Some Water Classes

As pointed out in Staff's testimony, "Certain classes of customers are unique to specific systems or may have special contracts that apply to their rates." (Michlik Direct Testimony, page 18) According to Staff, classes that are affected by these contracts could not be consolidated. Some of these contracts apply to residential users, such as residential ratepayers living in apartments in the Mohave – Bullhead system. In RUCO's opinion, it is not optimal to have a consolidated rate design that excludes certain sub-classes of ratepayers.

Q. What other general concerns does RUCO have regarding rate consolidation?

A. Another concern RUCO has with rate consolidation is that it eliminates the need to maintain books for individual systems. This could lead to the Company over-building a system or not maintaining prudent cost controls since the widespread sharing of these costs minimizes the rate increase. This may incent a Company to unnecessarily inflate its rate base.

> "If rates were to be consolidated, there would be no reason to maintain separate books and records for each of the [systems]...However, this loss of operation and financial data would destroy the ability to evaluate the effectiveness and efficiency of the Company's operation of the [systems].
> As a result, the [public utility commission] would lose its ability to exercise regulatory oversight and control as it pertains to these systems."[5]

If the Commission were to find that full rate consolidation is in the public interest, it could still order the Company to maintain system-specific bookkeeping. This would be helpful for Staff, RUCO and others to determine if costs were appropriately and prudently incurred in future rate cases.

This concern regarding transparency in bookkeeping is discussed in a New Hampshire Public Utilities Commission Order regarding Pennichuck Water. I have attached a copy of that Order as Exhibit C.

[5] Id. at 8 citing Ernest Harwig, Direct Testimony before the New Hampshire Public Utilities Commission in DR 97-058, Pennichuck Water Works, Inc. (1997).

Q. Did RUCO support rate consolidation in the pending Arizona Water rate case (Docket No. W-014457A-08-0440)?

A. RUCO testified in Arizona Water that it supports stand-alone rates. RUCO further testified that if the Commission finds that rate consolidation is in the public interest, then RUCO would not object to a consolidated rate design as illustrated by RUCO rate design "Option F".

In the Arizona Water case, RUCO's "Option F" was a modified rate consolidation rate design. It provided a consolidated monthly minimum rate for all 17 districts. **<u>However, each district retained its own commodity rate based on that district's cost of service</u>**. Finally, Option F limited any rate increase for any district to no more than $5.00 for the average residential ratepayer. This served to mitigate the rate impact for those districts that would subsidize the high cost districts as well as to narrow the rate impact difference between the systems with a rate decrease and systems with a rate increase.

In that docket, RUCO believed its modified rate consolidation proposal was in the best interest of the ratepayers of Arizona Water if the Commission decided to deviate from stand-alone rates. First, RUCO testified that Option F avoided rate shock better than any of the other proposals. Second, Option F appealed to RUCO because it was a small step toward consolidation for such a large water company. Those, like RUCO, who are uncomfortable with completely leaving traditional cost of service principles could take some comfort that these principles would be preserved

through the commodity rates. Third, separate commodity rates for the 17 widely diverse districts also send the proper price signals for water conservation. Fourth, Option F would require the Company to maintain separate books for each system to ensure that Staff, RUCO and others can review whether the Company is prudently incurring costs.

In this docket, there is no proposal to offer a consolidated rate design that retains system-specific commodity rates. Even if the parties would be willing to think about rate consolidation in this fashion, RUCO believes that there are still insurmountable problems with rate consolidation with this docket. As stated previously, RUCO believes that rate consolidation of systems with fair value rate bases predicated on different test years is legally flawed. Furthermore, RUCO interprets Decision No. 71410's revenue neutrality requirement to require neutrality for each individual system. Finally, ratepayers in Sun City West, Agua Fria, Tubac, Mohave, Havasu and Paradise Valley systems just had their rates increased at the beginning of 2010. By now, families have adjusted their utility budgets and are entitled to enjoy some rate stability for as long as a period of time as is practicable. A consolidated rate design brings all these districts back into "play". Once again, these ratepayers will face a rate change. While it is true some will see a rate decrease, others will face rate increases ***on top of*** what they have already incurred as a result of Decision No. 71410.

Q. Did RUCO support rate consolidation in the pending Bella Vista rate case?

A. Consistent with its testimony in Arizona Water, RUCO filed testimony indicating that it supports stand-alone rates, but would not object to consolidated rates. As the Commission must consider rate consolidation on a case-by-case basis, so must RUCO. In Bella Vista, RUCO found its concerns regarding price signals were not applicable noting similar water consumption patterns among the three closely located systems. All three systems draw their water from the same source. RUCO noted that the proposed consolidation was on a much smaller scale than that being proposed in this docket and that Bella Vista has had a progressive history of rate consolidation with its consolidation of the Nicksville system and its acquisition of the McLain systems in 2006.

Q. If the Commission decides in favor of rate consolidation, should that be the end of the discussion relating to rate design?

A. No. In RUCO's opinion, a favorable rate consolidation proposal is one that has the least detrimental effect to the systems that are picking up costs for other systems at the initial stage of consolidation. Over time, rates are stabilized and increases are minimized by spreading the costs of all systems. However, the most obvious cost shift happens in the ***initial*** rate case when rate design shifts from cost of service to consolidated rates. Any effort to mitigate the impact of that shift is in the public interest.

As RUCO expressed in Arizona Water and Bella Vista, it is one thing for the ratepayers of one system to endure a slightly larger rate increase in order to protect other ratepayers from the shock of an exorbitant rate increase. But it is another matter entirely if that increase is borne in order to reward the other system's ratepayers with an unearned decrease in rates! A primary goal of rate consolidation is to mitigate rate shock -- not to ***eliminate*** any responsibility for a system to cover its own costs.

Q. Have you reviewed the rate consolidation proposals offered by Staff?

A. Yes. While Staff recommends stand-alone rates for each district, it offers three different scenarios for the Commission's consideration. Scenario #1 is a complete, company-wide consolidation of all its water and wastewater districts. Scenarios #2 and #3 offer sub-groupings. While Staff does not provide any explanation for its reasoning behind Scenarios #2 and #3, their effect segregates the Sun City and Sun City West systems and shields them from increased rates that mitigate the rate increases of other districts – such as Anthem. Unfortunately, all these two options do is shift even more of Anthem's costs to other districts – such as Mohave and Paradise Valley.

RUCO agrees with the opinion stated by Mr. Broderick in his Rebuttal Testimony at pages 14-15.

> *"Staff scenarios Two and Three are essentially arbitrary combinations of various Company's districts that are difficult to justify to customers. These groupings will not reduce the number or frequency of rate cases, but will make odd combinations of*

> *communities. Grouping Sun City and Sun City West together is very difficult because, for example, residents of Sun City West will object to paying for Sun City's much older infrastructure. I cannot understand the basis for grouping the small groundwater based Paradise Valley district with the much larger surface water based communities of Anthem and Agua Fria. I cannot find any good reasons either to combine the much larger Mohave district with Tubac."*

Scenarios #2 and #3 do not match with some of the reasons RUCO would generally support rate consolidation – such as a reduction in rate case expense and a reduced toll on Staff resources.

More importantly, all three scenarios contradict the important Commission goal of water conservation by sending distorted price signals for water consumption. Finally, all three scenarios provide a rate decrease for Anthem. As stated earlier in this testimony, and recited in my testimony in Arizona Water and Bella Vista, while it is a worthy goal of rate consolidation to mitigate rate shock, it should not provide an unearned rate decrease at the expense of increased rates for others. In all three cases, not only is Anthem's cost of service rate increase mitigated, but it is completely eliminated. This unearned financial reward for Anthem comes at a cost to the ratepayers of Paradise Valley, Sun City and Mohave.

Q. Please explain Exhibit B.

A. Exhibit B attempts to put on to a single piece of paper the various rate proposals that the Commission is being asked to consider. While all this information is appropriately laid out in the testimony and numerous schedules provided by RUCO,

Staff and the Company, this format is easily digestible for me and I have included it as a convenience to the Commission.

It is impossible to consolidate rates without initial "winners" and "losers". The "winners" will receive subsidized rates and the "losers" will pick up the costs of the subsidized districts. There is no way around this. However, all ratepayers of a consolidated system can enjoy certain benefits. First, a consolidated system will result in lower administrative costs – primarily rate case expense. Second, those systems that initially bear a higher rate increase to subsidize other systems in the beginning will enjoy a mitigated rate increase in the future when those other districts pick up their future costs.

RUCO believes that ratepayers are willing to pay a little bit more in the beginning knowing that the benefit will be returned to them in the future. However, there will be resistance if the initial cost shift is too much. In Exhibit B, for illustrative purposes only, RUCO arbitrarily set this resistance threshold level at $5.00. Those districts shaded in red have more than $5.00 shifted to them through rate consolidation so that other districts can enjoy reduced rates. Once this tolerance threshold is crossed, I assert it is more difficult to find ratepayer support for consolidated rates. Alternatively, those districts that receive more than a $5.00 decrease in rates due to rate consolidation over a cost of service rate design are shaded in orange. As I stated earlier, consolidation should not result in an unduly large reduction in rates at the expense of other ratepayers. Yellow districts are those that fall within the $5.00

bandwidth where RUCO believes there would be little ratepayer opposition to consolidated rates. As you can see from Exhibit B, there are many more red and orange districts than yellow districts.

The point of this exercise is to leave the general and philosophical debate of rate consolidation and to bring to the forefront an examination of its financial impact on residential ratepayers. At this time, ratepayers in Sun City are aware (and strongly oppose) rate consolidation. But RUCO does not believe ratepayers in Paradise Valley and Mohave have any real idea that the notice they received as a bill insert regarding rate consolidation will have the actual financial impact as shown in Exhibit B.[6]

Q. What are your thoughts regarding the three step phased-in proposal offered by Ms. Heppenstall's rebuttal testimony on behalf of Arizona-American?

A. RUCO appreciates the Company's attempt to mitigate rate shock for certain ratepayers. Clearly, in these times of economic duress, postponing rate increases is certainly helpful to the pocketbook. However, RUCO does not support this proposal for the following reasons:

[6] The notice that was sent to all Arizona-American ratepayers states, "If approved by the Commission, this (rate consolidation) proposal may impact the rates of every Arizona-American water and wastewater customer – either increase or decrease."

1. Does not resolve the legal concern of consolidating rates with some districts' fair value rate base calculated using a 2007 test year and other districts' fair value rate base using a 2008 test year.

2. Interprets Decision No. 71410 to allow for a rate design that preserves the "overall revenue requirement"[7] for the impacted districts instead of interpreting that Decision's directive of a "revenue neutral" consolidated rate design proposal to require revenue neutrality for each district.

3. Increases rates for certain ratepayers who already are paying higher rates due to the 2009 increases set forth in Decision No. 71410.[8]

4. RUCO is not convinced that the ratepayers will be appreciative of step increases. RUCO believes rate stability is an important consideration. Regular rate increases will frustrate many ratepayers, who will be caught in a continuous cycle of rate increases. RUCO is concerned that as soon as the third step increase is borne by the ratepayers, Arizona-American will be back before the Commission asking for yet another rate increase – causing ill will for the Company and the Commission.

Q. Does this conclude your testimony?

A. Yes.

[7] See Heppenstall Rebuttal Testimony, page 8, lines 4-6.
[8] While Ms. Heppenstall's Exhibit CEH-1 details the step increases for both the monthly minimum and commodity charges, she does not provide a typical bill impact for the average residential ratepayer.

Arizona-American Water Company
Docket No. W-01303A-09-0343 et al.

Exhibit A

United States
Environmental Protection
Agency

Office of Water
Washington, DC 20460

EPA
September 1999

EPA

CONSOLIDATED WATER RATES: Issues and Practices in Single-Tariff Pricing

September 1999

A Joint Publication of the
U.S. Environmental Protection Agency and
the National Association of Regulatory
Utility Commissioners

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Acknowledgment and Disclaimer

This document is a collaborative effort of the United States Environmental Protection Agency (USEPA) and the National Association of Regulatory Utilities Commissioners (NARUC). USEPA is responsible for the implementation of Safe Drinking Water Act provisions. NARUC represents state public utility commissions that have jurisdiction for investor-owned and other water utilities.

This report does not constitute polices, positions, or views of the USEPA, NARUC, or NARUC-member commissions.

The report was prepared by Janice A. Beecher, Ph.D., Beecher Policy Research, Inc., who conducted an independent survey of commission staff members in 1996 on behalf of the staff of the Florida Public Service Commission and subsequent verifications and updates through contacts with the commissions.

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Consolidated Water Rates: Summary

Purpose

Consolidated rates or single-tariff pricing is the use of a unified rate structure for multiple water (or other) utility systems that are owned and operated by a single utility, but that may or may not be contiguous or physically interconnected. The purpose of this report is to provide policymakers and other stakeholders with an overview of consolidated ratemaking and an appreciation of the complex trade-offs involve in its implementation.

The report provides a review of historical, theoretical, and practical issues related to consolidated ratemaking, implementation data, and key decisions by the state public utility commissions. A detailed survey of state public utility commission staff regarding single-tariff pricing is presented. General commission policies are summarized, along with citations of specific regulatory decisions concerning single-tariff pricing.

How Consolidated Pricing Works

Under consolidated pricing, all customers of the corporate utility pay the same rate for the same service, even though the individual systems providing service may vary in terms of operating characteristics and stand-alone costs. In many respects, consolidated rates are the conceptual opposite of "zonal" or spatially differentiated rates.

Single-tariff pricing is used by many investor-owned water utilities, with the approval of state regulators, but it also can be implemented by publicly owned utilities. Single-tariff pricing can be an incentive for larger water utilities to acquire small water systems that lack capacity because it makes it possible to spread costs over a larger service population and maintain more stable and affordable rates for customers of some smaller and more expensive systems. Single-tariff pricing can be used by publicly owned or nonprofit water utilities that operate satellite systems, but few examples are readily available.

Unfortunately, the literature on utility ratemaking, which leans heavily toward the conditions and experiences of the energy and telecommunications industries, yields little theoretical insight or empirical evidence on the implications of single-tariff pricing. Much of the understanding of this issue is derived from case-specific regulatory proceedings. However, an analysis of historical and theoretical perspectives suggests that single-tariff pricing is not necessarily inconsistent with the prevailing principles of ratemaking.

The Tradeoffs

Single-tariff pricing is a provocative issue precisely because of the tradeoffs involved in its application, including possible tradeoffs among different types of efficiency. Single-tariff pricing might lessen some kinds of efficiency (such as those related to spatial allocation of costs and price signals to customers), while improving other kinds of

efficiency (such as those related to management and innovation). Of particular importance, but hardest to gauge, is whether single-tariff pricing and related restructuring can lead to long-run efficiency improvements in the water industry. Water utilities and policymakers must consider and weigh the evidence and trade-offs prior to implementing or approving single-tariff pricing.

A variety of theoretical and practical arguments in favor and against the use of single-tariff pricing can be made. Single-tariff pricing tends to stabilize rates and revenues, mitigate rate shock, and make rates more affordable for the customers of the smallest and more expensive systems. While achieving certain capacity-development, affordability, and operation efficiency goals, however, single-tariff pricing also might trade a degree of economic efficiency by ignoring spatial differences in costs and diluting price signals. A 1996 survey of commission staff members identified several arguments in favor of and against single-tariff pricing were identified.

Summary of Select Arguments in Favor and Against Single-Tariff Pricing

Select Arguments in Favor of Single-Tariff Pricing	Select Arguments Against Single-Tariff Pricing
☐ Mitigates rate shock to utility customers (17)	☐ Conflicts with cost-of-service principles (14)
☐ Lowers administrative costs to the utilities (16)	☐ Provides subsidies to high-cost customers (12)
☐ Provides incentives for utility regionalization and consolidation (15)	☐ Not acceptable to all affected customers (10)
☐ Physical interconnection is not considered a prerequisite (13)	☐ Considered inappropriate without physical interconnection (8)
☐ Addresses small-system viability issues (13)	☐ Distorts price signals to customers (7)
☐ Improves service affordability for customers (12)	☐ Fails to account for variations in customer contributions (6)
☐ Provides ratemaking treatment similar to that for other utilities (10)	☐ Justification has not been adequate in a specific case (or cases) (6)
☐ Facilitates compliance with drinking water standards (9)	☐ Discourages efficient water use and conservation (4)
☐ Overall benefits outweigh overall costs (9)	☐ Encourages growth and development in high-cost areas (4)
☐ Promotes universal service for utility customers (8)	☐ Undermines economic efficiency (3)
☐ Lowers administrative cost to the commission (8)	☐ Provides unnecessary incentives to utilities (2)
☐ Promotes ratepayer equity on a regional basis (6)	☐ Not acceptable to other agencies or governments (2)
☐ Encourages investment in the water supply infrastructure (5)	☐ Insufficient statutory or regulatory basis or precedents (2)
☐ Promotes regional economic development (3)	☐ Overall costs outweigh overall benefits (2)
☐ Encourages further private involvement in the water sector (2)	☐ Encourages overinvestment in infrastructure (1)
☐ Other: Can be consistent with cost-of-service principles (1) and found to be in the public interest (1)	

Source: Author's construct. See Tables E3 and E4. Numbers in parentheses represent number of mentions (out of 21 applicable survey responses).

efficiency (such as those related to management and innovation). Of particular importance, but hardest to gauge, is whether single-tariff pricing and related restructuring can lead to long-run efficiency improvements in the water industry. Water utilities and policymakers must consider and weigh the evidence and trade-offs prior to implementing or approving single-tariff pricing.

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☐ Addresses small-system viability issues (13)	☐ Distorts price signals to customers (7)
☐ Improves service affordability for customers (12)	☐ Fails to account for variations in customer contributions (6)
☐ Provides ratemaking treatment similar to that for other utilities (10)	☐ Justification has not been adequate in a specific case (or cases) (6)
☐ Facilitates compliance with drinking water standards (9)	☐ Discourages efficient water use and conservation (4)
☐ Overall benefits outweigh overall costs (9)	☐ Encourages growth and development in high-cost areas (4)
☐ Promotes universal service for utility customers (8)	☐ Undermines economic efficiency (3)
☐ Lowers administrative cost to the commission (8)	☐ Provides unnecessary incentives to utilities (2)
☐ Promotes ratepayer equity on a regional basis (6)	☐ Not acceptable to other agencies or governments (2)
☐ Encourages investment in the water supply infrastructure (5)	☐ Insufficient statutory or regulatory basis or precedents (2)
☐ Promotes regional economic development (3)	☐ Overall costs outweigh overall benefits (2)
☐ Encourages further private involvement in the water sector (2)	☐ Encourages overinvestment in infrastructure (1)
☐ Other: Can be consistent with cost-of-service principles (1) and found to be in the public interest (1)	

Source: Author's construct. See Tables E3 and E4. Numbers in parentheses represent number of mentions (out of 21 applicable survey responses).

State Commission Policies

The public utility commissions have provide the central forum in which single-tariff pricing has been evaluated. Single-tariff pricing is a relevant regulatory policy issue only for the thirty (30) state public utility commissions with jurisdiction for multi-system utilities. Given this context, a clear majority of affected state commissions have allowed regulated water utilities to implement single-tariff pricing (22 state commissions).

Based on the commission survey and subsequent updates, single-tariff pricing is generally accepted in eight (8) states. A few states (such as Connecticut, Pennsylvania, and Texas) have recognized single-tariff pricing as a policy tool. Staff members at seventeen (17) commissions characterized the policies of their commissions as "case-by-case," indicating that the single-tariff pricing must be justified for every specific application (even when the policy is "generally accepted"). Numerous exemplary decisions can be cited.

Summary of State Public Utility Commission Policies on Single-Tariff Pricing for Water Utilities

Commission Policy	State Commissions	
Generally Accepted (8)	Connecticut	Pennsylvania
	Missouri	South Carolina
	North Carolina	Texas
	Oregon	Washington
Case-By-Case (17)	Single-Tariff Pricing Has Been Approved (14)	
	Arizona	New Hampshire (d) (f)
	Delaware (a)	New York
	Florida	New Jersey (e) (f)
	Idaho (not an issue)	Ohio
	Illinois	Vermont
	Indiana (b) (f)	Virginia
	Massachusetts (c) (f)	West Virginia
	Single-Tariff Pricing Has Not Been Approved (3)	
	California (g)	
	Maryland (not an issue)	
	Mississippi (not an issue)	
Never Considered (5)	Iowa	Maine
	Kentucky	Wisconsin
	Louisiana	
Not Applicable – No Multi-System Water Utilities (15)	Alabama	Nevada
	Alaska	New Mexico
	Arkansas	Oklahoma
	Colorado	Rhode Island
	Hawaii	Tennessee
	Kansas	Utah
	Montana	Wyoming
	Nebraska	
No Jurisdiction for Water Utilities (6)	Georgia	North Dakota
	Michigan	South Dakota
	Minnesota	Washington, D.C.

Source: Author's construct. See Table 12 for notes.

Guide for Readers

1. **Introduction.** The introductory section defines consolidated ratemaking, discusses general advantages and disadvantages of this approach, and provides the policy and regulatory context in which rate consolidation is considered.

2. **Background.** This section contemplates single-tariff pricing in light of an historical perspective and the prevailing economic regulatory literature. The concept of spatially differentiated pricing (or "zonal rates") also is considered.

3. **Spatial Pricing and Ratemaking Theory.** Principles of ratemaking and tradeoffs among efficiency, equity, and other policy goals, are considered. Goals unique to the water industry are identified. The section also contrasts pricing in theory with pricing in practice.

4. **Structural Issues in the Water Industry.** This section identifies ways in which pricing policies will shape the structural character of the water industry and the future of small water systems.

5. **Cost Profile of the Water Industry.** This section considers the cost profile of the water industry, including the relevance of economies of scale, the challenge of maintaining affordable water service for consumers, and the means to enhancing water system capacity.

6. **Examples of Single Tariff Pricing.** Numerical illustrations of rate consolidation are provided here, including examples from two recent cases in Indiana and New Hampshire.

7. **Public Utility Commission Role.** The role of the state public utility commissions is reviewed in this section, with an emphasis on how commission policies will affect the structure of the industry through consolidation.

8. **Commission Survey.** Results of a 1996 survey of commission staff members are presented. Based on a database derived from the survey, this section also identifies the characteristics of utilities that have implemented consolidated rates.

9. **Arguments in Favor and Against Rate Consolidation.** Commission staff views about the advantages and disadvantages of single-tariff pricing are presented.

10. **Commission Policies on Rate Consolidation.** This final section summarizes commission policies on rate consolidation and provides an overview of several key cases, including regulatory decisions from West Virginia, Pennsylvania, Massachusetts, Florida, Illinois, New Jersey, Missouri, Indiana, New York, and Connecticut. This section also considers legal challenges to the authority of regulators to approve consolidated rates.

1. Introduction

Definition

Consolidated rates or single-tariff pricing is the use of a unified rate structure for multiple water (or other) utility systems that are owned and operated by a single utility, but that may or may not be contiguous systems or physically interconnected. Under a system of single-tariff pricing, all customers of the utility pay the same rate for service, even though the individual systems providing service may vary in terms of the number of customers served, operating characteristics, and stand-alone costs. Single-tariff pricing essentially allows for allocating the average costs of combined systems in the course of ratemaking. In addition to the term "consolidated rates," the terms "single-rate structure," "uniform rates," "standard-tariff rates," "unified rates," and "rate equalization" sometimes are used in connection with the concept of single-tariff pricing.[1] For the purposes of this report, the terms consolidated rates and single-tariff pricing are used interchangeably.

Single-tariff pricing *de*-emphasizes spatial distinctions in costs. One of the best examples of a single tariff across an expansive and multicentric "service territory" is the single rate used in the United States for first-class postage. Indeed, consolidated rates sometimes are called "postage-stamp" rates. Conventional wisdom holds that uniform postal rates historically facilitated the extension of service to rural areas and that they continue to serve the national interest, provide equity and accessibility, and lower transaction costs.[2]

Examples of uniform pricing also can be found in the other public utility sectors. Long-distance, cellular-phone, and cable television services typically are priced according to the single-tariff concept (although the same terminology might not be used). Historically, at least, energy prices were established for a regional enfranchised service territory, regardless of the physical proximity of customers to specific utility facilities.[3] The other public utility sectors generally price across larger regional territories than water utilities, although facilities in the other sectors tend to be physically interconnected through transmission and distribution networks.

Use of single-tariff pricing by U.S. water utilities continues to be debated in regulatory policy circles, although many states have approved consolidated rates for one or more jurisdictional utilities and a few states have actively promoted the use of single-tariff pricing. A very prominent example of single-tariff pricing in the water sector comes from "across the pond." All of Great Britain's privatized regional water and wastewater utilities,

[1] The concept of uniformity is useful, but the term "uniform rates" probably should be reserved for rate structures that do not vary usage (or volumetric) charges by quantities (or blocks) of water usage.
[2] For a provocative discussion of both sides of the issue, see Ronald H. Coase, "The Economics of Uniform Pricing Systems," *Manchester School of Economics and Social Studies* Vol. 15 (May 1947): 139-56.
[3] In the context of restructuring and partial deregulation, methods for aggregating customers, allocating costs, and setting prices are changing dramatically. Spatial considerations might become less important in some instances, as in the purchase of electricity from a far-away generating facility. But market forces might also tend to group customers with similar cost profiles and undermine the goals of cost averaging.

and most of the smaller water companies, impose uniform rates for measured (metered) service, for both household and nonhousehold customers. A summary of recent British water tariffs is provided later in this report.

Single-tariff pricing can be absolute, applicable to all of the systems comprising the water utility. However, utilities also sometimes establish rates for regional zones consisting of subsets of water systems within the larger service territory. Rate consolidation sometimes is used for water systems that are contiguous but not interconnected, as well as noncontiguous noninterconnected systems, based on various criteria. Partial rate consolidation can be a compromise between individualized tariffs and complete single-tariff pricing, or part of a phase-in plan leading ultimately to a single tariff for the entire utility and all of its service territories. Figures 1 through 4 provide simple illustrations of the basic issues involved in rate consolidation for water utilities. A glossary of terms appears in Appendix A of this report.

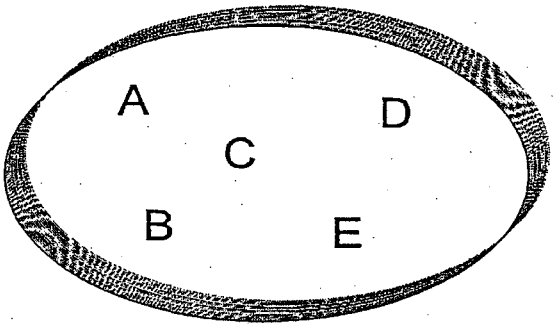

Figure 1. Water Systems without Physical Interconnection

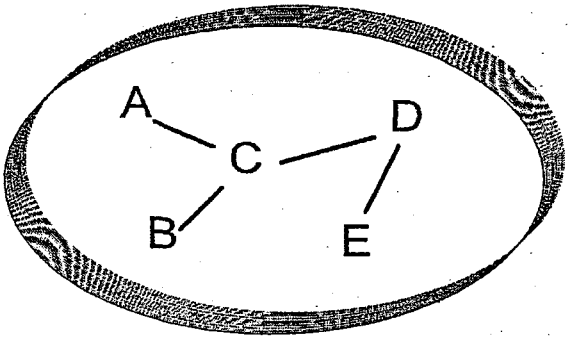

Figure 2. Water Systems with Physical Interconnection

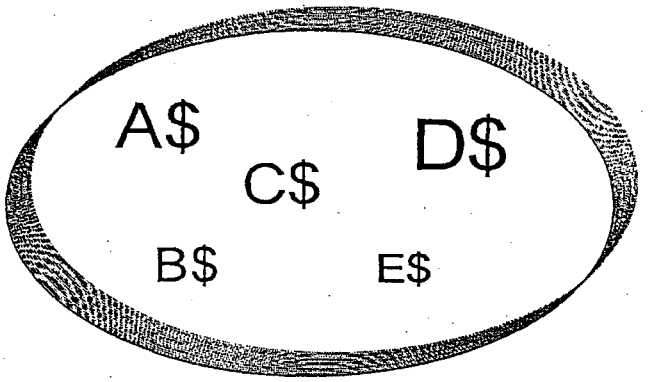

Figure 3. Water Systems with Stand-Alone Pricing

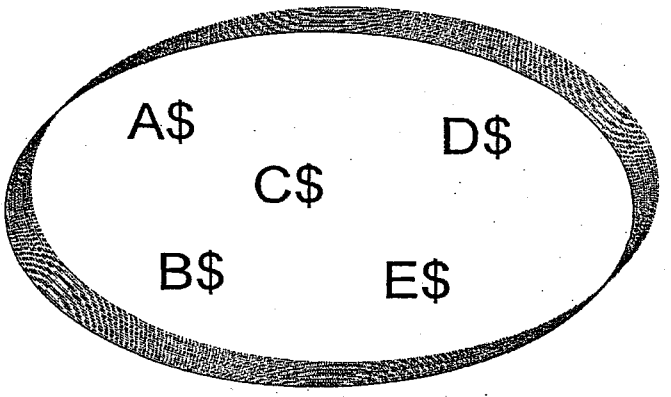

Figure 4. Water Systems with Consolidated Pricing

Key Advantages and Disadvantages

The primary advantages of single-tariff pricing are that it can lower administrative and regulatory costs, enhance financial capacity and capital deployment, achieve rate and revenue stability, and improve service affordability for customers of very small (or extremely small) water systems. The water industry's rising investment needs correlate with the interest in rate consolidation. A leading argument for single-tariff pricing made by multi-system water utilities is that each individual system eventually will require an infusion of capital for renovations and improvements; only the timing varies. Equalizing rates smoothes the effect of discrete cost spikes across systems and over time, much like insurance pooling. Single-tariff pricing also achieves equity to the extent that all customers of a given utility company pay the same price for comparable service.

Importantly, single-tariff pricing is a *pricing* strategy, not a *costing* strategy. Single-tariff pricing can appear to *lower* costs when in reality it simply *allocates* costs differently. In fact, one of the chief benefits of single-tariff pricing is that it greatly simplifies the allocation of common costs across separate facilities. Many water utilities believe that single-tariff pricing is more reflective of the consolidated cost of service. By itself, single-tariff pricing may not provide significant economies of scale because only the costs associated with the pricing process itself (including analytical, administrative, and regulatory costs) can be considered. Economies of scale in water production and management are achievable, irrespective of the rate structure implemented by the utility. Separating the cost side from the price side is crucial to understanding the true nature of the single-tariff pricing issue.

However, single-tariff pricing can lead to economies of scale in the water industry through secondary benefits. The secondary advantages are that single-tariff pricing can encourage industry consolidation, common management of smaller systems, and overall technical, financial, and managerial capacity. If regionalization *eventually* includes physical interconnection among some or all systems managed by a utility, more significant economies of scale can be realized. Larger utilities view consolidated rates as an incentive to engage in acquisitions because it can expedite the process and simplify ratemaking. The single-tariff price also can provide a powerful incentive for small communities as they contemplate selling their systems to larger utilities.

Other secondary advantages of consolidated rates include improved regulatory compliance by water utilities, the provision of universal service to customers who desire and need water service, and coordinated water resource protection, management, and planning. Even without physical interconnection, regional utilities can play a role in defining regional communities within which environmental services are provided. A consolidated rate for a larger community of customers will be more sustainable over time than stand-alone rates for smaller communities.

Consolidated rates also can improve the overall operational efficiency of a utility. Absent single-tariff pricing, the utility might be induced to invest in the system facing the highest

rates, even if this is a suboptimal choice from the standpoint of total system operations and economic value to the customer base as a whole. In other words, the utility might feel pressure to lower *prices* instead of lowering total system *costs*. With single-tariff pricing, utilities are induced to invest their available resources in the functional areas where the greatest improvement can be achieved at the lowest cost, to the benefit of all customers.

The primary disadvantages of single-tariff pricing are that it appears to undermine economic efficiency, distort price signals to customers, and manifest an inconsistency with traditional cost-of-service principles.[4] Although subsidies through some societal policy instruments (namely, taxes) are widely accepted, subsidies through utility rates generally are not.[5] Another potentially important equity concern is whether consolidated rates result in subsidies from the low-income customers in the low-cost area to higher-income customers in a high-cost area. This effect is mitigated to the extent that water use by low-income customers tends to be relatively low. Various aspects of the rate design also can lessen this type of subsidy.

Some communities and large-volume water users have opposed single-tariff pricing because they believe it is merely a means of subsidizing high-cost users at the expense of low-cost users. For this reason, single-tariff pricing also seems to be at odds with water conservation, in that it appears to weaken price signals and thus undermine efficient production and consumption. If rate consolidation involves a price decrease for some customers, one concern is that water consumption could increase.[6]

Secondary disadvantages are that—*absent other incentives or safeguards*—single-tariff pricing can provide some water utilities with incentives to overinvest in individual systems, disincentives for cost control, and a competitive advantage in the course of acquisitions. The latter concern applies only if one potential acquirer can offer consolidated rates and another cannot.[7]

These concerns are fundamental to utility economics, pricing, and regulation. However, any differences between single-tariff pricing and spatial pricing in terms of efficiency and other effects have not been well established from either a theoretical or empirical standpoint. Evaluating the *net* efficiency effects is especially difficult. Single-tariff pricing might lessen some kinds of efficiency (such as those related to spatial allocation of costs and price signals to customers), while improving other kinds of efficiency (such as those related to management and innovation). Of particular importance, but hardest to gauge, is whether single-tariff pricing and related restructuring can lead to long-run efficiency

[4] Steve H. Hanke, "On Water Tariff Equalization Policies," *Water Engineering and Management* 128 (August 1981): 33-34.

[5] The appropriateness of rate differentiation continues to be debated today in the context of both regulation and *de*regulation of public utility industries. The potential movement away from cost averaging for some services will affect customers, as well as the utilities that serve them.

[6] The price elasticity literature, however, is clearer about the usage effects of price increases than the usage effects of price decreases.

[7] In realty, competition for acquisitions is less a problem in the water industry than finding a single capable and willing buyer.

improvements in the water industry. Single-tariff pricing also has been underevaluated in terms of ratemaking criteria other than economic efficiency.

Single-Tariff Pricing as a Policy Issue

Single-tariff pricing is a public policy issue because it involves tradeoffs among competing policy objectives. Traditional cost-of-service principles and economic efficiency arguments, adhered to in the U.S. model of economic regulation as applied by the states to public utility monopolies, can lead to the conclusion that spatially-differentiated (or allocated) costs should be used as the basis for pricing utility services. Single-tariff pricing as a matter of public policy in this context requires an explicit recognition of the tradeoffs involved.

Specifically, single-tariff pricing involves a tradeoff between conventional ideas about cost-based rates, economic efficiency, and other legitimate ratemaking goals. These other goals include, for example, small-system capacity, rate and revenue stability, universal service, and compliance with environmental standards. A fine-tuned price signal that appears to be economically efficient, for example, can result in considerably less rate and revenue stability. Likewise, a conservation-oriented rate may not be affordable to customers. Evaluating ratemaking trade-offs can be complex. The decisionmaking process can be greatly enhanced by information and analysis, and decisions can be made more rational, but a certain degree of judgment ultimately is required in determining whether a particular option is in the public interest.

The short-term goals of single-tariff pricing tend to focus on enhancing the financial capacity of water systems and making rates more affordable for water customers. The long-term goals, however, are related to structural change in the water industry. Specifically, single-tariff pricing is regarded as a means to consolidating the management and operation of water systems, or "regionalization," to achieve multiple policy goals.

The Regulatory Context

Single-tariff pricing has received more attention in the context of economic regulation by the state public utility commissions than in context of public ownership (where regulation is limited or nonexistent). A compilation of citations to selected commission orders on the issue can be found in Appendix B of this report. As discussed later in this report, the issue is not equally relevant in every jurisdiction. Not all states regulate water utilities, and for those that have jurisdiction, multi-system water utilities may not be present. Single-tariff pricing also has not been raised as an issue for every multi-system water utility

Single-tariff pricing was placed on the regulatory policy agenda by the investor-owned water industry. Some water industry officials have made a strong case for single-tariff pricing before regulators. Several of the regional affiliates of the American Water Works

Company have taken the lead in advocating this method of pricing before the state public utility commissions, including the commissions in Illinois, Indiana, New Jersey, and Pennsylvania. However, other multi-system utilities (not affiliated with American Water Works), commission staff members, and other stakeholders also have raised the potential use of single-tariff pricing.

The many proceedings (and sequences of proceedings within certain jurisdictions) in which the issue of single-tariff pricing has been raised is suggestive of the *case-by-case* manner by which single-tariff pricing policy has largely developed. This is due in part to the nature of commission decisionmaking: regulators must rule on the record of evidence put before them in a given proceeding and each individual utility generally must make its own case for implementation. However, some commissions have explicitly encouraged the movement toward single-tariff pricing and a few have incorporated this approach into general policies and specific policies dealing with acquisitions of smaller systems.

Opponents have argued forcefully before the commissions that single-tariff pricing contradicts fundamental regulatory principles and conventions, as well as undermines the commission oversight responsibility:

> Tariff consolidation, sometimes called Single Tariff Pricing (STP), breaks the connection between costs and rates. It is a fundamental tenet of utility ratemaking policy that the cost causer should also be the cost payer. STP runs counter to this principle. Under and STP scheme, customers who receive no service from the core system would receive a considerable subsidy. Likewise, customers who do not impose a load on the [noncore systems] would be forced to pay a portion of the cost of providing that service indefinitely. A customer located in the core system would be encouraged to conserve water to an excessive degree. Conversely, a [noncore customer] would bear a smaller economic penalty for using more water than necessary.
>
> It is also important to note that once a regime of subsidies has been initiated, it is very difficult to discontinue this practice due to customer impact considerations, even if it has been found to create undesirable consequences. Subsidies are understandably popular among those who receive them, and it is equally understandable that they will resist their being terminated. Conversely, subsidies are understandably unpopular among those who pay them....
>
> If rates were to be consolidated, there would be no reason to maintain separate books and records for each of the [systems]...[8] However, this loss of operating and financial data would destroy the ability to evaluate the effectiveness and efficiency of the Company's operation of the [systems]. As a result, the [public utility

[8] This point seems somewhat overstated. Most consolidated utilities maintain detailed cost and other data on their operating units for planning and management purposes. Under single-tariff pricing, the need for an acceptable method to allocate *common* costs across distinct systems for ratemaking purposes is lessened or eliminated.

> commission] would lose its ability to exercise regulatory oversight and control as it pertains to these systems.[9]

Most of the commissions historically shared this predilection for "cost-based" rates. In numerous recent decisions involving a variety of utilities and issues, however, many of the state public utility commissions have found that single-tariff pricing is *in the public interest* and that it comports with prevailing standards concerning just, reasonable, and nondiscriminatory rates. Some commissions have found that single-tariff pricing is not inconsistent with cost-of-service principles or with commission ratemaking authority.

A variety of specific rationales (or combinations thereof) have been put forth by some of the commissions to justify approval of single-tariff pricing: it addresses pragmatic concerns affecting utilities and customers (namely, revenue stability and mitigation of rate shock); it is consistent with consolidated management, operations, financing, and corporate structures; it reduces regulatory caseload and costs; and it results in comparable prices for comparable services produced from comparable facilities. Many investor-owned utilities have strongly urged regulators to recognize that these companies provide all of their customers the same brand-name product (a safe and reliable supply of potable water) and that single-tariff pricing will also make the product more affordable. Essentially, single-tariff pricing makes it possible for all customers to share in the total economies of scale and scope achieved by the utility corporation.

Asserting regulatory authority to approve single-tariff pricing in some jurisdictions has not been an easy task. The issue often arises in the context of other complex regulatory issues related to water utility rates, management, operations, and acquisition practices. Regulatory rulings must be within the scope of commission authority and the boundaries set by state legislatures and the courts; if not, commission decisions can be legally challenged. Nevertheless, as explored later in this report, the state public utility commissions have approved the use of single-tariff pricing for many multi-system water utilities. Several specific regulatory determinations involving single-tariff pricing are reviewed later in this report.

[9] Ernest Harwig, Direct Testimony before the New Hampshire Public Utilities Commission in DR 97-058, Pennichuck Water Works, Inc. (1997).

2. Background

With few exceptions, the literature on public utility economics and ratemaking–including ratemaking for the water industry–sheds little direct light on the issue of single-tariff pricing. The leading scholarly work on utility economics mainly considers the economic characteristics of telecommunications and energy industries, where private ownership prevails, regionalization is pervasive, physical interconnection is the norm, and costs of transmission are low.[10] The leading manuals on water utility ratemaking published by the American Water Works Association convey little (if any) information about the single-tariff pricing method, a fact that probably undermines the method's institutional acceptance.[11] A cursory review of other promising bodies of literature, such as economic geography, does not readily yield information on this apparently understudied issue.

The limited discussion of the spatial dimension of utility ratemaking appears mainly within the literature on legal doctrine and in the consideration of zonal pricing.

The Municipal-Unit Doctrine

In the adolescent years of the public utility industries, legal scholars debated whether costs of providing service should be allocated spatially. Specifically, the debate centered on the cost differences associated with providing service to urban and rural areas, the latter of which can be more expensive to serve because of the cost of service-line extensions and lack of economies of scale (for example, numerous users at the end of the line). The known result of strictly cost-based pricing would have been to discourage the extension of "modern" services to rural areas. Based on the essential nature of utility services, the consequence would have been marked differences in the quality of life between urban and rural dwellers, as well as underdevelopment of rural communities.

A series of legal precedents seemed to establish municipalities as ratemaking units for utilities serving multiple cities. The "municipal-unit doctrine" refers to the treatment of a municipality as a distinct service territory and unit for cost allocation and ratemaking purposes (that is, "city-based" rates). In a 1934 review, however, Robert D. Armstrong passionately rejected the "municipal-unit doctrine," primarily on economic-development grounds:

> System utilities have made service available to the entire public, both urban and rural, within large areas. This development serves a sound social policy. Any regulatory policy or rule of law which would curtail it or rob it of its just reward would be unfortunate and unwise. If each locality were required to stand upon

[10] See Charles F. Phillips, Jr., *The Regulation of Public Utilities* (Arlington, VA: Public Utilities Reports, Inc., 1993).

[11] American Water Works Association, *Water Rates (M1), Water Rates and Related Charges (M26),* and *Alternative Rates (M34)* (Denver, CO: American Water Works Association, 1983, 1983, and 1992, respectively).

> its own bottom, so to speak, rural and village extension and development would be discouraged, and in many cases existing service abandoned.
>
> This would hurt the larger communities as well as the rural localities. It would tend to eliminate the rural and village patrons, who now contribute something to system overhead and return, and thus lessen its burden upon city and town patrons. It would reverse the process by which large scale production and distribution have been made possible, with more dependable service and lower rates for all. It might ultimately require higher rates within the larger municipalities in order to produce a reasonable unit return.
>
> Moreover, anything that would discourage the development and prosperity of the tributary rural and village territory would react unfavorably on its economic center and business capital.[12]

Armstrong also cites addresses by Governor (and President-to-be) Franklin D. Roosevelt in 1929 and Harvard Professor Philip Cabot in 1932, both of whom advocated "greater uniformity in public utility rates despite differences in cost on broad grounds of public policy."[13] At the 1929 State Fair, Roosevelt "attacked the inequality and lack of standardization" of utility rates and declared the situation "manifestly unfair":

> Now, I am sorry to say that the principle of reasonably equal service at reasonably equal cost to all the people of the State has not been carried out with regard to the two latest forms of public service—the telephone and electricity. For some reason (the history of which it is unnecessary to go into) the original telephone companies were allowed to charge different kinds of rates, and now, when practically all telephones are controlled by the greatest of all American mergers, we do not insist on either uniform service or uniform rate. . .
>
> The other example, and one which is even more glaring in its unfairness, is that of the use of electricity in the homes. The railroad principle of fairly uniform rates has been thrown to the winds even by the public regulating body known as the Public Service Commission. Is it [now] time to stop and ask the question: "Why does electricity in the home, the electric lights, electric refrigerator, electric sewing machine, the home machinery, cost as high as from 15 to 20 cents per kilowatt hour in some localities and as low as from 4 to 6 cents per kilowatt hour in other localities." Why should families in one section be so grossly penalized over families in another section?

[12] Robert D. Armstrong, "The Municipality as a Unit in Ratemaking and Confiscation Cases, *Michigan Law Review* 32 No. 3 (January 1934), footnotes omitted. Armstrong served as a hearing examiner with the Indiana Commission and thereafter with the Interstate Commerce Commission.
[13] Armstrong (1934), 292n.

> This difference in charges is true not merely in its application to regions as large as counties, but is true in respect to towns adjoining each other and houses separated only by a mile or two. This is perhaps one reason why even today nearly two-thirds of all the farm houses in the State of New York have no electricity. I am wondering whether it is not time for the people of this State to ask for the application of a more uniform rate and a more uniform system of charging for installation.[14]

Utility regulators have a considerable degree of discretion in ratemaking, but their authority is derived from state legislatures and checked routinely by the courts. In 1933, for example, the Supreme Court upheld a decision by the Indiana commission to treat municipalities as separate ratemaking units pursuant to state law. In response, however, the legislature expressly authorized the commission to prescribe uniform rates on a regional basis. This section continues to hold a place in the Indiana Code:

> Every public utility is required to furnish reasonably adequate service and facilities. The charge made by any public utility for any service rendered or to be rendered either directly or in connection therewith shall be reasonable and just, and every unjust or unreasonable charge for such service is prohibited and declared unlawful. The commission, in order to expedite the determination of rate questions, or to avoid unnecessary and unreasonable expense, or to avoid discrimination in rates between classes of customers, or, whenever in the judgment of the commission public interest so requires, may, for ratemaking and accounting purposes, or either of them, consider a single municipality and/or two (2) or more municipalities and/or the adjacent and/or intervening rural territory as a regional unit where the same utility serves such region, and may within such region prescribe uniform rates for consumers or patrons of the same class. . .[15]

The policy theory deployed to reject the municipal-unit doctrine accepts a fairly sizable subsidy of rural services in the interest of achieving societal policy goals. Historically, and for public policy reasons, rural utility services also were subsidized through governmental grant and loan programs. In the public sector, local governmental subsidies related to water and wastewater services are relatively common.[16]

Following the apparent demise of the municipal-unit doctrine, most investor-owned telecommunications and energy services seemed to price their products on a service-territory basis. Today, this issue has been eclipsed by the trend toward competitive pricing. Price theory suggests that competitive firms will offer the same price, based on marginal cost, at all locations. Unregulated monopolists will maximize profits by engaging in price discrimination among markets. According to B. Peter Pashigian, the net

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[14] Ibid.

[15] Indiana Code §8-1-2-4 Sec. 4.

[16] Another violation of efficiency occurs when subsidies flow *from* the water system to the municipal budget.

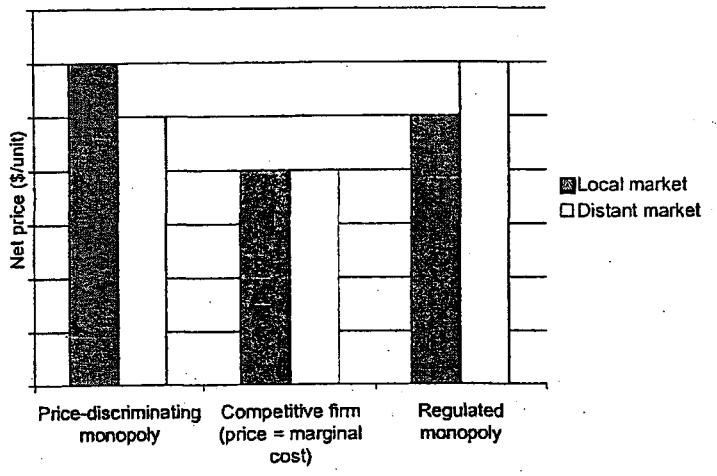

Figure 5. Illustration of Pricing Practices by Firms

Source: Adapted from B. Peter Pashigian, *Price Theory and Applications* (New York: McGraw Hill, 1994), 467.

price will be *lower* in the distant market under geographic price discrimination because the price-discriminating monopolist absorbs the freight costs associated with distant sales.[17]

Of course, economic regulation tends to reverse this finding, resulting in higher prices to higher cost areas (namely, distant or rural markets). Pricing theory suggests, however, that consolidated rates may be consistent with the behavior of competitive firms. The generalized disparity in pricing among different types of firms is illustrated in Figure 5.

Competition places a greater emphasis on overall efficiency as a determinant of price levels, rather than on allocating costs according to space or other criteria used in monopoly ratemaking. Competitive pricing also shifts some attention away from the cost of service toward the value of service. Pricing flexibility can help firms respond to competitive forces, focus on service, and improve overall efficiency. When left to their discretion, many multisystem utilities will opt for the competitive advantage of a consolidated rate. Absent competition, however, the rate will not achieve efficiency.

[17] B. Peter Pashigian, *Price Theory and Applications* (New York: McGraw Hill, 1994), 467.

Spatial Pricing

Analysts seem to agree that utility costs vary *spatially;* that is, the cost of serving one area generally is not matched by the cost of serving another area. For water utilities, differences in elevation, climate, physical terrain, the age of the infrastructure, the density of the service population, and a host of other factors will tend to affect costs even for service territories that otherwise appear similar. Differences in the proximity to water sources, the type of source (surface water versus groundwater), the quality of source water, and implemented treatment methods will tend to produce substantial cost differences.

Assumptions about efficiency and concerns about equity in cost allocation also can lead to zonal pricing, by which utilities vary prices according to spatial variations in costs among customer groups that are grouped into zones, districts, or service areas. Zonal pricing recognizes that the location of consumers within a larger service area can affect the cost of providing service.[18]

With zonal pricing, rates are differentiated according to substantial differences in the cost of serving different areas. Zones generally are defined in spatial terms and represent geographic clusters of customers with similar cost characteristics. Differences in costs among zones may be attributed to differences in distribution system costs, which may be due to differences in the physical plant serving the zones (including age). A more frequently cited reason for spatially differentiated pricing, however, is the variation in pumping costs caused by differences in the proximity to facilities, density of the service population, and particularly elevation. For practical purposes, and as used in this report, zonal pricing is essentially the same as spatially differentiated pricing.

The zonal price can reflect not only the proximity of groups to source and treatment facilities, and differences in terrain, but also the different peaking characteristics that service areas might present. Economist Robert Greene describes a situation in which three zones present alternative distance and peaking characteristics that can be used to guide the efficient allocation of capacity costs for each zone.[19] In this case, customers assume a greater cost burden when they are further from the treatment plant and when they contribute to the peak period of water usage. Greene's example of the cost allocation based on zonal differences appears in Table 1. The cost allocation reflects the fact that users impose different capacity costs on water systems based on their location, well as their contribution to the system's peak loads.

According to Greene:

[18] Janice A. Beecher, Patrick C. Mann, and John D. Stanford, *Meeting Water Utility Revenue Requirements: Financing and Ratemaking Alternatives* (Columbus, OH: The National Regulatory Research Institute, 1993).

[19] Robert Lee Greene, *Welfare Economics and Peak Load Pricing* (Gainesville, FL: University of Florida Press, 1970).

Table 1
Cost Allocation Under Zonal Pricing

Zone	Distance from the Treatment Plant	Peak Period of Usage	Efficient Allocation of the Zone's Capacity Costs
Zone A	1 mile	Period I	All users in Zones A, B, and C
Zone B	1-2 miles	Period II	All Period II users in Zones B and C
Zone C	2-3 miles	Period I	Period I users in Zone C

Source: Adapted from Robert Lee Greene, *Welfare Economics and Peak Load Pricing* (Gainesville, FL: University of Florida Press, 1970), 60.

> The importance of zone pricing rests not only in the proper allocation of resources in water use. There is considerable significance with respect to land use and other objectives. In a discussion of improper pricing policies tied to marginal rents and the constraints imposed by these rents. . . A zone pricing solution can be used for rate differentials in both seasonal and daily peak load problems. . . Zone pricing can also be used to adjust rates in accordance with cost differentials arising from such factors as geographical characteristics and population density. . .[20]

The key issue in implementing zonal rates is one of cost justification. If substantial cost differences exist within a service area, then zonal rates may be an appropriate form of rate unbundling that ostensibly attains more efficient water rates.

The efficiency gain assumes that the zonal rate is cost-based and that the transaction costs associated with unbundling are justified by the efficiency gains. Zonal rates that are arbitrary (for example, rates that bear no relationship to cost variations or rates that are based solely on geopolitical boundaries) will introduce inefficiencies. The expense of developing zonal cost data probably has limited the application of zonal pricing. A prerequisite to efficient zonal pricing is the capability to accurately calculate the cost differences associated with providing service to different zones within a utility's service territory.

Economic and engineering arguments against zonal pricing can be made.[21] Capital-intensive utility systems should be designed for optimal performance of all utility functions (supply, treatment, distribution, and so on) within a service territory. Spatial differentiation within the service territory might subvert this general optimum. In other words, the utility

[20] Ibid., 61-62.
[21] Beecher, et al. (1993).

does not deploy resources in the most economically beneficial manner. Another potential disadvantage of zonal pricing is that it can accentuate the problem of localized cost and rate shock associated with infrastructure replacements. By broadening the customer base, a uniform or average rate will cushion the shock and temper its adverse effects (such as revenue instability).

Zonal rates also raise concerns about equity and perceptions of equity. Obviously, zonal rates usually will be met with considerable resistance from the groups of consumers asked to pay higher water rates. In some contexts, zonal pricing might constitute an undesirable form of price discrimination.

Zonal pricing is used by the water industry to some degree, although not necessarily by that name. Wholesale water rates might qualify as an example because they typically reflect spatial differences in costs. Utilities that set different retail prices for districts served include the California-American Water Company and the Los Angeles Suburban Water Company.[22] A more common form of zonal pricing used by publicly owned utilities is the rate differentiation for service inside and outside municipal boundaries. Fairfield, California provides an example of spatially differentiated pricing, both within the city and between residents and nonresidents (see Table 2). As a generalization, municipal utilities are more likely to use inside-city/outside-city pricing and investor-owned utilities are more likely to seek approval for rate uniformity across service territories.

Table 2
Example of Municipal Zonal Rates for Residential Water Customers

Residential Water Charges	Rate
Service charge	$0.50 per day
Water-use charge	$1.35 per 100 cubic feet
Zone 3 (200 feet and over)	$1.67 per 100 cubic feet
Zone 5 (400 feet and over)	$2.00 per 100 cubic feet
Pneumatic Pump Zones	
Zones 1 and 2	$1.57 per 100 cubic feet
Zones 3 and 4	$1.89 per 100 cubic feet
Zone 5	$2.22 per 100 cubic feet
Outside City Charge	
Service charge	$0.75 per day
Water-use charge	$2.02 per 100 cubic feet

Source: City of Fairfield California Utility Rates, as of January 1, 1999. 100 cubic feet = 748 gallons. (http://www-e-v.com/fairfield/government/public_works/rates.htm).

[22] Raftelis Environmental Consulting Group, *1996 Water and Wastewater Rate Survey* (Charlotte, NC: Raftelis Environmental Consulting Group, 1996).

For a variety of reasons, zonal pricing does not appear to be the prevailing model for retail water pricing. Importantly, costs can vary *within* physically interconnected service territories by magnitudes as great as they might vary between noninterconnected systems. By and large, many cost differentials associated with spatial considerations are essentially disregarded in the ratemaking process for public utility systems.

Spatial Pricing and the Telephone Industry

The rejection of zonal pricing in the debate over statewide telephone rates seems to come closest to providing a rationale for single-tariff pricing by multi-system water utilities. According to Charles Phillips:

> While each exchange is a distinct unit for rate-quoting purposes, the former Bell System companies have generally established rates on a statewide basis. Essentially, the statewide basis provides that the total costs of furnishing telephone service and the resulting revenue requirements are considered for the state as a unit. This practice recognizes that telephone service, both exchange and intrastate toll, furnished by a given company through a state, is, in reality, an integrated whole, all portions of which are interdependent. The objective is to apply throughout the state a well-balanced and coordinated pattern of rate treatment, providing rates that are uniform under substantially like conditions and producing, in the aggregate, reasonable earnings on the company's total telephone operations within the state.
>
> The statewide basis has five important advantages over consideration of individual exchanges. First, the statewide basis permits more people to have better service at a reasonable price. Some small areas, if forced to pay their own way, might have no service at all. Needed plant replacements or additions might be postponed if local customers had to cover their full costs, resulting in deterioration of local service within the exchange and of toll service to and from it. Second, on the statewide basis, customers pay like charges for like amounts of service. If each exchange had to stand on its own feet, customers' charges would vary with physical characteristics of the exchange areas, age of plant, type of equipment and other factors affecting costs, but not necessarily affecting the service rendered. The statewide basis averages out such factors.
>
> Third, customers seem better satisfied with statewide rates, since the application of uniform schedules avoids any questions of discrimination or unfair advantage to pressure groups in individual exchanges. Fourth, the statewide basis tends to stabilize rate levels by providing a broad rate basis. Risks are shared so that a community suffering from flood, storm or other natural disaster or from some local economic difficulty (e.g., the removal of a major industry) need not pay higher telephone rates such as would be required if telephone operations in that exchange had to meet these conditions single-handedly. Finally, the statewide basis is more workable and makes the regulatory process less cumbersome and expensive to both

> the public and the company involved. It avoids multiplicity of rate cases for each individual exchange. It simplifies handling of questions and complaints by the regulatory commissions and administration by the companies.
>
> At the same time, it should be pointed out that the statewide basis results in some subscribers subsidizing other subscribers. Because exchange telephone service is more valuable to customers in the larger service areas, they are willing to pay more for their service. Since their average cash incomes are greater, they are able to pay more. Lower rates in the small towns and rural areas, where average money incomes are relatively low, encourage telephone use and development in these places. Once again, this is an example of how rate discrimination has been used to achieve a socially desirable objective, in this case the widespread development of telephone usage through the country.[23]

Phillips also discusses how "nationwide averaging has been used in establishing interstate toll rates, under which toll rates are the same for equal distances throughout the continental United States, despite differences in the costs involved"[24] A nationwide rate, he acknowledges, has "all of the advantages of statewide rates, but it results in internal subsidization" and raises a variety of competitive issues as well.

Counterpoint

In a direct and provocative treatment of the "uniform pricing" issue, economist Ronald Coase acknowledged that the key arguments favoring uniformity are founded on the view that certain services (namely, utility services) are considered essential and that the undertaking as a whole can be "self-supporting."[25] However, Coase notes the intellectual disagreement among early postmasters (also economists) over whether postage stamp rates actually served the interests of rural communities.

Absent a governmental subsidy, according to Coase, a uniform price actually might cause a provider to avoid or delay extending service to high-cost areas, *even if the customers in high-cost areas are willing to cover the additional costs through rates (or surcharges).* Adding high-cost customers to the mix increases the average cost of production and decreases the economic well-being of the utility. The magnitude of this effect depends on the relative mix of high-cost and low-cost service. Coase makes, and then relaxes, a number of assumptions that may or may not be valid but he does not consider the role of economic regulation. In practice, a forward-looking ratesetting process that accounts for the total cost of service throughout the consolidated service territory neutralizes the disincentive Coase identifies. Indeed, the primary and practical purpose of rate consolidation had been to extend service *while* maintaining the utility's financial health.

[23] Phillips (1993), 517-518.
[24] Phillips (1993), 522.
[25] Coase, "The Economics of Uniform Pricing Systems."

3. Spatial Pricing and Ratemaking Theory

Theoretical Issues

The defining engineering, economic, structural, and institutional characteristics of the water industry generally are not contemplated in the literature establishing the basic principles of utility ratemaking. The central issue of whether physical interconnection should be required for single-tariff pricing by multi-system water utilities is not well addressed. Because other utility infrastructures—electricity, electricity, natural gas, telecommunications—have a high degree of interconnection through transmission grids, the acceptability of cost averaging for non-interconnected systems is a theoretical problem unique to the water and wastewater industries. Although energy and telecommunications providers experience spatial differences in cost, these differences are generally not reflected in prices.

In the prevailing theories used in ratemaking and regulation, the concepts of "due" (or just and reasonable) and "undue" (or unjust and unreasonable) price discrimination are contemplated with regard to customers classes but not with regard to spatially defined systems. Separate prices for separate systems owned by a common entity reflect assumptions about the implications of the cost allocation for efficiency. It can be argued that water costs are allocated (and prices are charged) on a spatial basis primarily because they *can be,* rather than that they *should be* for unequivocal theoretical or empirical reasons. In other words, the costs of providing utility service can be approximated for individual operations (with corporate common costs allocated among them), but the benefits and desirability of doing so are contingent on other considerations.

A logical (if not well documented) argument can be made that spatial pricing comports with cost-of-service principles and enhances allocative efficiency: customers of systems with higher costs pay higher rates and customers of systems with lower costs pay lower rates. The degree of subsidy or inefficiency introduced with single-tariff pricing, and whether or not it is acceptable, depends in part on the differential in costs among systems. A small differential with a minimal rate impact will be less controversial than a large differential with a substantial rate impact. Little guidance is available on to what extent of cost averaging through single-tariff pricing would constitute an inappropriate level of subsidy, undue price discrimination, or more generally an abuse of monopoly power.

However, with or without single-tariff pricing, utility rates can be more or less efficient depending on other features of the rate (such as the mix of fixed and variable charges, the number of rate blocks, rate-block differentials, and seasonal differentials). These features can promote efficient water use and can do so when used in conjunction with single-tariff pricing. Moreover, and perhaps more importantly, the cost of service is not the only guiding principle and efficiency is not the only goal of public utility ratemaking and policymaking, as discussed later in this report.

In reality, virtually all methods of utility rate design require a considerable degree of cost averaging. The obvious example is in the establishment of rates by customer classes (for example, residential, commercial, industrial, and wholesale). But many utility costs are associated with common operational and management functions. Common costs are allocated to customer groups according to one of several available methodologies. For multi-system utilities that do not use single-tariff pricing, common costs must be allocated spatially as well. Allocating common costs requires the analyst to make assumptions about underlying cost drivers and establish yet another layer of averaging. The entire process of cost allocation and rate design is as much art as it is science, and has at least as much to do with equity as it does efficiency.

In many jurisdictions, the *status quo* presents a challenge for utilities. Based on the prevailing theoretical assumptions, the burden of proof has rested on water utilities to justify the use of single-tariff pricing. In other words, the prevailing assumption is that deviations from spatial allocation of costs (such as the movement toward consolidated rates) must be justified. An alternative approach would be to begin with a single tariff and specify the circumstances under which spatial allocation of costs is justified because of concerns about efficiency, equity, subsidies, undue discrimination, or other ratemaking or policy concerns. This might shift attention to the use of extra-tariff instruments, such as surcharges, to make price adjustments needed to encourage efficiency and accomplish other purposes.

Evaluation Issues

The appropriateness of reflecting spatial differences in cost in prices can be evaluated according to traditional and modern ratemaking criteria. The general criteria for many public policies, and for utility ratemaking, often emphasize competing goals. Although it always seems desirable to achieve public policy goals efficiently, efficiency itself is not the only goal of policymaking:

> Of course, efficiency is not the only societal value. Human dignity, economic opportunity, and political participation are values that deserve consideration along with efficiency. On occasion, public decision makers or ourselves, as members of society, may wish to give up some economic efficiency to protect human life, make the final distribution of goods more equitable, or promote fairness in the distribution process. As analysts we have a responsibility to confront these multiple values and the potential conflicts among them.[26]

The emphasis on, concept of, and assumptions about efficiency shape views about what is just, fair, or equitable. Political philosophers offer alternative perspectives. The Rawlsian theory of justice, which holds that public policies should be used to

[26] David L Weimer and Aidan R. Vining, *Policy Analysis: Concepts and Practice* (Englewood Cliffs, NJ: Prentice-Hall, 1989), 31.

provide the greatest benefit to society's least advantaged, is perhaps the best example of a countervailing philosophy.[27]

Ratemaking Criteria

Ratemaking and rate design are guided by certain fundamental principles that are well established and well accepted in the regulatory community. These principles provide guidance, but are not decisive because each involves a degree of subjectivity and some principle might directly clash with others.

Most ratemaking analysts rely substantially on James Bonbright's eight criteria for a sound or desirable rate structure:

1. The related, "practical" attributes of simplicity, understandability, public acceptability, and feasibility of application.
2. Freedom from controversies as to proper interpretation.
3. ✓ Effectiveness in yielding *total* revenue requirements under the fair-return standard.
4. Revenue stability from year to year.
5. Stability of the rates themselves, with a minimum of unexpected changes seriously adverse to existing customers.
6. ✓ Fairness of the specific rates in the appointment of total costs of service among the different consumers.
7. Avoidance of "undue discrimination" in rate relationships.
8. ✓ Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use:
   (a) in the control of the total amounts of service supplied by the company;
   (b) in the control of the relative uses of alternative types of service (on-peak versus off-peak electricity, Pullman travel versus coach travel, single-party telephone service versus service from a multi-party line, etc.[28]

As indicated by check mark (✓), Bonbright considered three criteria—revenue sufficiency, fairness, and efficiency—to be especially important.[29] Despite the passage of time, Bonbright's criteria remain quintessential. Table 3 presents a qualitative analysis of the consistency of single-tariff pricing with Bonbright's traditional criteria (items 1 though 8). Five additional policy criteria that are especially relevant to modern water pricing also are presented (items a through e).

Consolidated rates generally seem to meet the test of Bonbright's first five criteria. If practicality depends in part on customer acceptance, then acceptance becomes a

[27] John Rawls, *A Theory of Justice* (Cambridge, MA: Belknap Press of Harvard University Press, 1971).
[28] Phillips (1993), 434-435. Based on James C. Bonbright, *Principles of Public Utility Rates* (New York: Columbia University Press, 1961).
[29] Phillips (1993), 434-435.

determinant. Other aspects of practicality, namely simplicity, understandability, and feasibility of application (or implementation) seem very compatible with single-tariff pricing. The last three criteria are labeled as indeterminate because their compatibility with rate consolidation depends on other policies or practices, or on the subjective judgment of the evaluator. While single-tariff pricing is not necessarily consistent with these criteria, neither is it clearly inconsistent. On the issue of fairness, single-tariff pricing might be considered unfair on the basis of subsidization, but fair on the basis of sharing burdens at a reasonable cost. On the issue of efficiency, other features of a tariff also affect the accuracy of price signals.

The five additional criteria included represent a select group of other potentially relevant policy goals in relation to single-tariff pricing for the water industry. Resource planning is considered indeterminate because planning incentives and outcomes probably are more heavily influenced by the structural character of the water industry than by rate design. However, single-tariff pricing seems rather consistent with four other criteria—standards compliance, customer affordability, industry restructuring, and institutional legitimacy. The last criterion, institutional legitimacy, is somewhat of a composite indicator. The assertion of consistency reflects the generally positive support for single-tariff pricing by the state public utility commissions and the courts.

Table 3
Consistency of Single-Tariff Pricing With Ratemaking Criteria

Criterion	Consistency of Single-Tariff Pricing with Criterion
Bonbright Criteria	
1. Practicality	Generally consistent (if accepted)
2. Interpretability	Generally consistent
3. Revenue recovery	Generally consistent
4. Revenue stability	Generally consistent
5. Rate stability	Generally consistent
6. Fair cost allocation/equity	Indeterminate
7. Discrimination avoidance	Indeterminate
8. Efficient resource use	Indeterminate
Additional Criteria	
a. Resource planning	Indeterminate
b. Standards compliance	Generally consistent
c. Customer affordability	Generally consistent
d. Industry restructuring	Generally consistent
e. Institutional legitimacy	Generally consistent

Source: Author's construct. Criteria 1 through 8 are from James C. Bonbright, *Principles of Public Utility Rates* (New York: Columbia University Press, 1961).

Directly or indirectly, these criteria figure prominently in the consideration of rate consolidation. Other analysts surely could raise other relevant considerations. No attempt is made here to weight the criteria according to perceived importance; this is a task left to policymakers. In reality, the efficiency criterion is assigned considerable weight in ratemaking, as well as in policymaking in general. In other words, divergence from efficient solutions (or solutions that are perceived to be efficient) must be well justified.

The Efficiency Criterion

Economic theory argues for utility pricing that promotes overall *efficiency* for society. An efficient price signal leads consumers to consume, and producers to produce, an appropriate amount of a good or service. Prices that are too low can lead to overconsumption (and underproduction); prices that are too high can lead to underconsumption (and overproduction). The mismatch of supply and demand, and the "welfare loss" associated with it, has rippling effects throughout the economy because in using excessive resources to produce a good, or spending too much for that good, society foregoes opportunities to use those resources or make those expenditures elsewhere.

Economic theory also argues for utility pricing that is *equitable* in terms of allocating costs to those responsible for those costs.[30] In this conception, equity essentially serves efficiency goals. Three kinds of equity can be considered. Horizontal equity suggests that those who impose similar costs should pay the same rate. A related ratemaking principle is that rates should be "nondiscriminatory." Vertical equity suggests that those who impose different costs should pay different rates that reflect those cost differences. Ratemaking allows for "due discrimination" when costs among customer groups vary substantially. Finally, intergenerational equity considers equity along a temporal dimension, suggesting that one generation of customers should not be forced to cover costs imposed by another generation of customers.

Economists long have argued for prices that reflect costs and against subsidies that distort price signals. Modern pricing theory more specifically calls for pricing based on marginal costs; that is, prices should reflect the incremental cost of producing an additional increment of a good. Prices based on long-term marginal costs will help achieve long-term efficiency in deploying resources. Efficiency is a fundamental goal but it is not the only goal of utility pricing. Pricing also must help achieve a delicate balance between the interests of the utility and the interests of ratepayers, and in doing so satisfy the public interest standard.

[30] Of course, other theoretical perspectives will argue for different kinds of equity, such as social and political equity.

Other Criteria

Another vitally important ratemaking principle centers on the avoidance of "undue" price discrimination. An important issue for regulators is whether the level of price discrimination under either single-tariff pricing or stand-alone pricing is "due or undue," that is, whether or not it is justified. According to Charles Phillips:

> Price discrimination occurs when a seller establishes for the same product or service different rates that are not justified entirely by differences in cost, or the same rate where differences in cost would justify differences in price. . . [I]t would be theoretically possible for a firm to charge each customer a different rate. . .[31]

The often-cited legal standard of "undue discrimination" does not point regulators or the courts to particular solutions, as articulated by Richard J. Pierce:

> Most regulatory statutes forbid "undue discrimination" in the relationship among the rates charged different customers or classes of customers. This statutory standard is almost completely devoid of meaning, however. By using the adjective "undue," the standard obviously authorizes some forms of price discrimination, but it says nothing that would help an agency or a court distinguish between permissible and impermissible rate differentials.
>
> Much of the case law purporting to distinguish between due and undue discrimination is affirmatively misleading. . .
>
> [The Supreme] Court's holding in *Hope* applies with equal force to rate design decisions. An agency's decision has a "presumption of validity," and anyone seeking to overturn it has "the heavy burden of showing that it is invalid." The agency is "not bound to the use of any single formulae in determining rates."[32]

A closely related and equally complex regulatory standard is whether resulting rates are "just and reasonable." Phillips explains:

> [D]iscrimination is accepted in the rate structures of public utilities, but. . . such discrimination must be "just and reasonable." Discrimination is both unintentional and purposeful. It is unintentional in that some discrimination results from the efforts of utilities and commissions to simplify the rate structures by grouping customers into a limited number of classifications. It is purposeful in that discrimination may be the only way in which service can be provided to some customers. Low-density routes may be subsidized by high-density routes (even

[31] Phillips (1993), 69-70.
[32] Richard J. Pierce, *Economic Regulation: Cases and Materials* (Cincinnati: Anderson Publishing Co., 1994), 122.

> under competition), small towns by large cities. Rather than preventing discrimination, regulation merely seeks to control what discrimination takes place.[33]

In sum, regulatory agencies have considerable discretionary authority, and have exercised that authority, to determine whether rates and rate structures are within acceptable boundaries. Many state public utility commissions have found that rate consolidation by multi-system water utilities is within these boundaries.

Pricing in Practice

Despite the hallowed status of economic efficiency in ratemaking, pricing in practice often violates pricing in theory. Many sources of distortion (governmental grants and subsidies, differences in ownership, ill-defined markets for alternative water uses, and a variety of past public policies) distort price signals for water. The considerable "noise" in the real world of assigning monetary values to water undermines the efficiency of the price signal sent by utilities. Practical applications of marginal-cost pricing, when used at all, deviate substantially from the theoretical construct. One key reason is that strict adherence to the marginal-cost model could allow utility monopolies to receive excess revenues and earn excess profits (in the case of investor-owned utilities).

Averaging costs to one degree or another is an accepted practice in utility ratemaking. For example, rate regulators generally do not accept "vintage" rates that distinguish "old" customers from "new" customers even though old and new customers impose different costs on the utility system.[34] Ratemaking also tends to ignore the reality that older and newer parts of a water system will require capital investments at different times and at different costs; these improvement costs instead are averaged across the entire system and all of the utility's customers.[35]

In rate design, economic theory often gives way—at least somewhat—to practical and public policy concerns. An example that has some relevance for the single-tariff pricing debate is the provision of budget-payment plans for customers that equalize payments over a year, making the utility bill during the peak period of use (such as the winter heating bill or the summer cooling bill) more affordable. A disadvantage of the budget plan in terms of economic efficiency is that it undermines the price signal to customers, which may lead them to overconsume (and pay a higher annual bill than they otherwise would pay). But the advantages of convenience and affordability for customers, as well as avoidance of costly and potentially dangerous disconnections, generally outweigh these theoretical considerations.

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[33] Phillips (1993), 70, footnotes omitted.
[34] John Guastella, "Single Tariff Pricing and Conservation Rates," a discussion paper prepared for the Rates and Revenue Committee of the National Association of Water Companies (1994).
[35] Guastella (1994).

The budget-payment plan is an imperfect analogy to single-tariff pricing, however, in that it is customer-specific and does not involve subsidization from one customer to another. Subsidization will occur, however, with lifeline rates that provide a minimal block of usage at a price below the cost of service and lenient disconnection practices. Such policies introduce equity and fairness considerations beyond those narrowly defined by economic theory.

4. Structural Issues in the Water Industry

The U.S. water industry is complex and diverse. The U.S. Environmental Protection Agency and the state primacy agencies, count noncommunity and community water systems. According to the EPA's *Community Water System Survey* (1997), about 50,289 community water systems operate in the United States. A community water system is a system serving a population of 25 or more people with at least 15 service connections.

The data confirm both the large number of water systems in the United States, as well as the large proportion of smaller systems within that total. Relatively small systems, defined as systems serving communities with a population under 3,300 persons, comprise about 85 percent of total systems and provide water to approximately 12 percent of the connections served by community systems. Conversely, about 15 percent of community water systems are larger in size and provide water to approximately 88 percent of connections.

Systems v. Utilities

Community water *systems,* which the EPA inventories, can be distinguished from water *utilities.* Water utilities are governmental, nonprofit, or private corporate entities engaged in providing water service to one or more service territories. Water *utilities* can operate more than one water *system.* Multi-system utilities are particularly apparent in the private segment of the water industry. Many of the larger investor-owned utilities actually operated several distinct water systems. In some cases, none of the systems operated by the utility are physically interconnected; in other cases, two or more of the systems may be connected to common water source, transmission, or treatment facilities.

The state public utility commissions typically count the number of regulated water *utilities* but not necessarily water *systems.* In 1995, the number of commission-regulated water *utilities* was about 8,537 and the number of commission-regulated water *systems* was about 11,064.[36] Thus, the commissions regulate approximately 20 percent of all water systems, although the number and percentage of commission-regulated systems probably is somewhat underestimated because of the difficulty in counting regulated systems.

In some states, the number of regulated utilities is equivalent to the number of regulated systems. However, the distinction between utilities and systems is important in that many jurisdictional water utilities encompass multiple community water systems. The presence of numerous multi-system utilities is, and will continue to be, an important feature of the U.S. water industry.

[36] Janice A. Beecher, *1995 Inventory of Commission-Regulated Water and Wastewater Utilities.* (Indianapolis, IN: Center for Urban Policy and the Environment, 1995).

Multi-System Water Utilities

A multi-system water utility is a utility comprised of several distinct water systems. Physical interconnection among systems can help utilities achieve economies of scale in production and enhance service reliability. Common management of physically separate systems, however, also can help systems realize operational, management, and financing (cost-of-capital) savings.

Even without physical interconnection, the utility still can achieve economies of scale and scope through certain operational and administrative functions. Operating multiple noninterconnected systems within close physical proximity, for example, might allow the utility to save labor costs by using a circuit rider approach to system operations. A specialized maintenance team might also be used to address ongoing programs for maintenance, replacements, and improvements. Shared operations and management also can enhance the ability of water systems to respond to water emergencies. Consolidated meter reading, billing, and customer relations functions also can produce savings.

At the management level, planning, financing, regulatory relations, and other areas of decisionmaking can be consolidated on a utility-wide basis. Managers with greater expertise can be retained at the utility level than at the smaller system level. While managers with greater expertise will command higher salary and benefit packages, the investment in their expertise can yield savings that individual systems could not otherwise achieve. Ample anecdotal evidence supports the assertion that smaller systems benefit from access to expert technical knowledge. Using this expertise, multi-system utilities can exploit efficiencies and improve effectiveness by deploying a unified workforce, rather than having each individual utility maintain separate capability for various utility functions.

The potential advantages of utility-wide management may extend beyond the immediate efficiency payoffs. Planning for multiple systems, as compared to individual systems, allows for a more comprehensive approach. Better planning, in turn, should enhance the utility's capacity to respond to regional economic and environmental issues. Effective watershed management and source-water protection programs, for example, require a regional perspective that is not easily achieved by isolated systems.

Another appreciable benefit of common management is lowering the cost of capital. A consolidated utility with a broader customer and revenue base is expected to pay lower financing costs than individualized systems. This is a particularly important benefit for very small water systems.

Multi-system utility operations can be linked to the broader and more long-term policy concerns related to structural change in the water industry through regionalization. Multi-system utilities generally serve regional areas. Many have the potential to combine operations, with or without physical interconnection, with other nearby water systems (many of which are small in size). Water utility mergers and acquisitions reflect a very gradual trend toward regionalization and, in some cases, privatization of water services.

Existing utilities also can be used to provide service as an alternative to the creation of new water utilities. Indeed, many states will not certify a new water system if service from an existing provider is feasible. In addition to expanding regional water operations, some water utilities have diversified by entering the wastewater industry. Likewise, some private energy utilities providing electricity and natural gas have ventured into the water business. The formation and expansion of multi-system utilities and multi-sector utilities are part of potentially fundamental structural changes occurring in the water industry.

Pricing and Structural Change

Pricing is intrinsically related to structural change in the water industry. For example, a utility's level of interest in a merger or acquisition opportunity may depend on anticipated price effects. A negotiated sale of a utility might include limitations on near-term pricing practices or even price caps or freezes for a fixed period of time. Larger utilities often are reluctant to consider acquiring smaller, nonviable systems unless reliable means of cost recovery can be identified and secured. An acquisition candidate often presents substantial infrastructure needs but its service community lacks the ability to pay for improvements through higher rates. As mentioned already, the acquisition will yield some economies but not usually economies of a magnitude great enough to offset the diseconomies associated with the smaller system's operations. Some argue that more acquisitions would occur if acquiring companies were provided incentives, including the ability to spread costs throughout the utility's multiple service territories.

Although the dilemmas of small water systems have been extensively studied, the issue of pricing probably has received considerably less attention than viability assessment, capacity building, and related approaches. Pricing policies ultimately will play a role in shaping the future structure of the water industry, including but not limited to the future of small water systems.

Incentives for Restructuring

Single-tariff pricing has the potential to encourage economic industry consolidation and regionalization, as well as privatization.[37] Averaging costs mitigates rate shock for customers and enhances revenue stability for utilities; it also is relatively simple to administer. Some investor-owned utilities have sought rate equalization in direct connection with small system acquisitions.[38] According to one industry representative,

[37] Janice A. Beecher, G. Richard Dreese and John D. Stanford, *Regulatory Implications of Water and Wastewater Utility Privatization* (Columbus, OH: The National Regulatory Research Institute, 1995), 141.
[38] Patrick Mann, G. Richard Dreese, and Miriam A. Tucker, *Commission Regulation of Small Water Utilities: Mergers and Acquisitions* (Columbus, OH: The National Regulatory Research Institute, 1986); Raymond W. Lawton and Vivian Witkind Davis, *Commission Regulation of Small Water Utilities: Some Issues and Solutions* (Columbus, OH: The National Regulatory Research Institute, 1983).

single-tariff pricing "could help solve the dilemma of other nonintegrated small water systems."[39]

The focus of this report is on single-tariff pricing by regulated investor-owned utilities because the issue has emerged primarily within these parameters. Rate consolidation can be used as easily by publicly owned utilities as by investor-owned utilities.[40] Many of the larger metropolitan water systems could acquire numerous contiguous small systems and employ single-tariff pricing with a negligible customer-bill impact.[41] In the context of public utility regulation and mandated takeovers, it appears that the burden of acquiring troubled systems seems has fallen more to privately owned than to publicly owned water utilities. This is because many small systems are privately owned and regulated, the larger investor-owned systems do not confine their service territories to local political boundaries and regulators can provide acquisition incentives to jurisdictional utilities. In the few states where a takeover can be mandated, it may be easier to impose this responsibility on a private system.

Unfortunately, little systematic evidence on the use of single-tariff pricing in the public sector is available. Also, most municipal utilities and many public authorities appear to operate single water systems only. However, one example of the use of single tariff pricing in the nonprofit context can be found in Clark County, Washington. Clark Public Utilities is a customer-owned district that provides water service (and other services) to 24,000 customers throughout Clark County and also operates several small "satellite" systems for small groups of homes throughout the county.[42] All customers pay the same monthly customer charge and uniform volume rate.

Some municipalities do impose zonal rates that reflect differences in elevation and pumping costs. Generally, however, municipal water utilities impose a single pricing structure for all citizen-ratepayers served within municipal boundaries; ratepayers outside of municipal boundaries often pay a higher rate.[43] Higher "outside" rates are justified on the grounds that "inside" customers bear more risks and burdens associated with financing capital improvements through municipal funding instruments. However, the rate differential often appears to be somewhat arbitrary. In a few states, charging a different rate to outside customers can trigger economic regulation by the state (Pennsylvania is an example).

Some insights can be gained from two states where state economic regulation applies both the privately and publicly owned water systems. In Wisconsin, state law *mandates* single-

[39] Edward M. Limbach, "Single Tariff Pricing," *Journal American Water Works Association* 75 no. 9 (September 1984): 52.
[40] Limbach (1984).
[41] Cities may lack adequate incentives or opportunities or acquisitions. In contrast, regulatory agencies can offer investor-owned utilities with rate-of-return and other incentives. Some commissions have the authority to mandate takeovers of smaller, nonviable water systems.
[42] Clark Public Utilities (http://clarkpud.com/Default.htm).
[43] The interest of many investor-owned utilities in single-tariff pricing clearly stands in contrast to the apparent interest of many municipally owned utilities in spatially differentiated pricing.

tariff pricing for municipalities.[44] In West Virginia, where economic regulation applies to public service districts, as well as investor-owned utilities, single-tariff pricing has been an issue because of the needs of the state's rural areas. Single-tariff pricing is approved on a case-by-case basis and both single tariffs and multiple tariffs are used throughout the state.

Many of the state commissions have broadly supported the idea of consolidating water utilities and specifically approved valuation, costing, and pricing practices that encourage larger and healthier utilities to acquire smaller and less healthy utilities. The Pennsylvania Public Utility Commission, in its policy statement regarding acquisitions, explicitly mentions single-tariff pricing. These regulatory policies are being adopted within the larger context of structural change in the water industry. These structural changes may include reconsideration of traditional methods of regulation and ratemaking, as is taking place in many jurisdictions for the other utility industries.[45]

[44] Wisconsin S. 66.069 (1) (a) (1971).

[45] In the increasingly competitive electric and natural gas industries, for example, the interest in regulatory alternatives is high. These alternatives include price caps and flexible rates, which essentially deregulate rate design by giving utilities greater discretion in setting rates within broad parameters.

5. Cost Profile of the Water Industry

Water utilities remain one of the more tried and true monopolies in terms of basic economic characteristics. In general, water service can be provided efficiently by a vertically integrated supplier; two or more suppliers (or redundant distribution systems) in the same service area would greatly increase costs and rates. The technology of water supply clearly demonstrates economies of scale, meaning that average unit costs decrease with the quantity of water provided. The prevalence of many small utilities undermines the industries' overall efficiency in terms of achieving economies of scale.

Even in comparison to other fixed utilities, water utilities require substantial investment in fixed assets relative to the variable costs of production (including the cost of raw water, energy, and treatment chemicals).[46] Using the standard of capital investment per revenue dollar, water supply is among the most capital-intensive of all utility sectors. Capital investment in water supply mainly is a function of the need to establish production capacity; maintain a complex storage, transmission, and distribution network; and meet both fire-protection specifications and peak demands. In general, the water supply industry has high fixed costs and low capital-turnover rates. However, the capital intensity of the water supply industry also can be explained by the industry's relatively low variable (operating) costs, which translate into relatively low operating revenues.

Reflecting these cost characteristics, water rates typically take the form of a fixed charge that does not vary with usage and a variable charge that varies with usage. Traditional cost-of-service principles can lead to very high fixed charges and very low variable charges for water utilities. Efficiency-oriented rates, however, tend to accentuate the variable component of the water bill in order to affect consumption behavior.

Trends in Water Costs

Water supply clearly is a *rising-cost* industry. Water supply utilities, and their regulators at the federal, state, and local levels, are increasingly aware of the water supply industry's changing revenue requirements. Three key forces affecting the industry's costs are (1) the need to comply with regulatory provisions of the Safe Drinking Water Act (SDWA), (2) the need to replace and upgrade an aging water delivery infrastructure, and (3) the need to meet population growth and promote economic development. In addition, water utilities face a variety of secondary cost forces. These include the often high cost of borrowing to finance capital projects (especially for small systems) and the shift to nonsubsidized, self-sustaining operations (especially for publicly owned systems).

[46] For a comparison of the water industry to the electric, natural gas, and telecommunications industries, see Janice A. Beecher, *The Water Industry Compared: Structural, Regulatory, and Strategic Issues for Utilities in a Changing Context* (Washington, DC: National Association of Water Companies, 1998).

The concurrent and mutually reinforcing impact of these forces on many water utilities presents a substantial pressure on both capital and operating costs, a pressure not previously experienced by the water supply industry. In response, water utilities are reexamining their cost allocation and rate design practices. The interest in alternative ratemaking methods for the water sector is on the rise.

Rising costs, along with structural and regulatory changes in this industry is placing new demands on utility regulators. However, rising costs should not be taken for granted but closely scrutinized. Moreover, the water supply industry must be held accountable for making prudent decisions in response to its changing cost profile. The industry must be able to fully justify the use of alternative approaches to meeting revenue requirements (including automatic cost-adjustment mechanisms, pass-throughs, and special surcharges, as well as cost-allocation and rate-design methods).

Water utility regulators generally are open to the consideration of policy alternatives but also vigilant about whether these alternatives are within the scope of regulatory authority and consistent with accepted regulatory principles. Regulators will want to be especially cautious about affecting the incentives that determine whether utility costs are effectively managed. Thus, the industry perspective on rising costs and how to address them should be tempered by a reasoned regulatory perspective.

Economies of Scale

Although an arbitrary threshold, water systems serving under 3,300 (or approximately 1,000 service connections) generally lack economies of scale in production and other aspects of service.[47] As a result, many small water systems are prone to capacity problems and difficult to sustain over time.

Economies of scale in water supply, particularly in the areas of source development and treatment, make it difficult for smaller water utilities to perform as well as larger water utilities. Declining unit costs of production indicate scale economies; as the volume of water "produced" (that is, withdrawn and treated) increases, the cost per gallon or cubic foot decreases. At lower unit costs, production is less costly in the aggregate and more efficient at the margin.

Very small water systems underperform primarily because they simply are not large enough to achieve economics of scale. Scale economies in the water sector explain why smaller utilities tend to have less capacity in financial, managerial, and technical terms.[48] Rising

[47] U.S. Environmental Protection Agency, *Affordability of the 1986 SDWA Amendments to Community Water Systems* (Washington, DC: U.S. Environmental Protection Agency, 1993).
[48] Janice A. Beecher, G. Richard Dreese, and James R. Landers. *Viability Policies and Assessment Methods for Water Utilities* (Columbus, OH: The National Regulatory Research Institute, 1992).

costs over the past decade have exacerbated the condition of smaller systems.[49] Capacity-development problems often are manifested in higher rates for water service.

Scale economies (or lack thereof), thus become an important determinant of how much people pay for water service. As a generalization, assuming comparable system characteristics and cost-based pricing, larger systems should be able to provide service at a lower price than smaller systems. In reality, of course, many factors other than system size (such as the quality of source water and treatment methods required) influence ultimate water costs and prices. But as a generalization, it is widely held that smaller water systems must charge customers much higher rates for water service comparable to service provided by larger water systems.

Importantly, the economies of scale in water production are associated with the *volume* of water produced (not simply the number of service connections). Even smaller systems that are fortunate enough to have one or two large-volume customers will enjoy some economies of scale. Two utilities can have a comparable level of investment per customer and cost-of-service for the same number of residential customers, but if one also serves a large industrial firm and economies of scale are achieved, everyone in that community will enjoy lower water bills. In other words, when *controlling* for large-volume use, the level of investment and the cost of service can be quite comparable from system to system. One of the arguments in favor of single-tariff pricing is that it allows all customers to benefit from the location of large customers anywhere in the composite service territory.[50]

Some evidence about the effect of utility size on water prices is available. A 1996 survey, summarized in Table 4, found that median prices decline as system size increases for different classes of customers served (residential, commercial, and industrial). The implication is that small-systems customers pay more for roughly the same level of service as large-system customers. As a consequence, the affordability of water service is a greater threat for small systems. "Rate shock" is another problem for many smaller systems because increasing costs must be spread over a smaller customer base.

In some respects, rate consolidation is similar to "aggregation," a tool emerging in the context of electric industry restructuring. Aggregation is used to group customers according to similar characteristics, usage patterns, or service requirements. Aggregation can provide access to services and a degree of purchasing power to disadvantaged customers. In effect, multi-system utilities are aggregators for the customers in the various systems they manage. Both aggregation and rate consolidation can promote the broader goal of universal service.

[49] Janice A. Beecher, Patrick C. Mann, and John D. Stanford, *Meeting Water Utility Revenue Requirements* (Columbus, OH: The National Regulatory Research Institute, 1993).
[50] Conversely, large-volume users in the larger service territory might complain that single-tariff pricing forces them to subsidize customers in outlying areas.

Table 4
Monthly Water Bills by System Size and Customer Class

Customer Class	Group A Systems Producing >75 MGD *(n=34)*	Group B Systems Producing 15 to 75 MGD *(n=61)*	Group C Systems Producing < 15 MGD *(n=47)*
Residential			
Median monthly charge for 1,000 cubic feet (7,480 gallons)	$13.19	$14.64	$15.61
Commercial			
Median monthly charge for 50,000 cubic feet (374,000 gallons)	$486.82	$530.92	$578.96
Industrial			
Median monthly charge for 1,000,000 cubic feet (7,480,000 gallons)	$7,926.97	$8,747.06	$10,292.34

Source: Raftelis Environmental Consulting Group, *1996 Water and Wastewater Rate Survey* (Charlotte, NC: Raftelis Environmental Consulting Group, 1996), Exhibit 2.
MGD = million gallons daily. *n* = number of systems in the sample.

Capacity Development

Federal policymakers and state regulators, including both drinking water primacy agencies and public utility commissions, have long been concerned about how to check the emergence of new nonviable water systems, how to improve the performance capacity of existing systems, and how to maintain safe and affordable water service.[51] The 1986 Safe Drinking Water Act triggered substantial attention to small-system issues and the problem of keeping rates affordable in light of the newly enacted standards.

Regulators continue to seek out ways to balance the equally legitimate fiscal concerns of water utilities (that is, financial capacity) and utility customers (that is, affordability). The 1996 Safe Drinking Water Act codified capacity-development policies for new and existing water systems and elevated the capacity-affordability conundrum to a higher place on the policy agenda.

Capacity in this context is defined in terms of a utility's financial, managerial, and technical well being. Financial capacity carries particular importance because a financially healthy utility will have the resources needed for professional management and technically appropriate operations. Many (but not all) small water systems struggle with significant capacity problems. These problems are manifested by the small water utility's poor performance in many areas, including regulatory compliance.

[51] Beecher, Dreese, and Landers (1992).

Traditionally, both economic and public health regulators have been very focused on small-system capacity issues. Policymakers have paid considerable attention to smaller water systems and the tradeoffs between ensuring a financially healthy system and maintaining affordable rates for safe and reliable water service. One manifestation of capacity problems is noncompliance with drinking water standards. For small systems, these violations often include failure to meet monitoring and reporting requirements. Small systems also have difficulty complying with public utility commission regulations. For very small systems, meeting the procedural mandates of economic regulation (such as rate filing requirements) can be difficult.

Small water systems have long troubled state economic regulators. Many (but certainly not all) of the commission-regulated water systems are small in size, which poses certain public policy problems. Particularly problematic are the very small systems that were the product of unchecked real estate development and lax local zoning policies. Many of these systems are geographically isolated, which often precludes interconnection with another system. Lacking economies of scale, smaller water systems typically must charge a much higher rate for service than larger systems. Higher rates make water service less affordable for customers of smaller water systems.

As a utility monopoly, water supply demonstrates substantial economies of scale. Larger water systems enjoy these economies, meaning that they can spread certain costs over a larger customer base. Lower production costs are reflected in lower prices to customers. Smaller systems must recover revenue requirements over a smaller customer base. In general, smaller systems are more likely to encounter capacity and affordability problems.

Consumer Affordability

Economic theory argues strongly for cost-based utility rates, that is, rates based on the true cost of providing a service. An efficient (cost-based) rate should sustain the water system; however, if the rate is unaffordable to the service population and customers cease to pay for and/or receive the service, the water system itself may cease to exist. This solution may achieve a degree of economic efficiency, while sacrificing other fundamental public health, safety, and quality-of-life purposes.

For many water customers, the affordability of water service is a growing problem. The problem of affordability affects customers in terms of increased arrearages, late payments, disconnection notices, and actual service terminations. Affordability affects utilities in terms of expenses associated with credit, collection, and disconnection activities; revenue stability and working capital needs, and bad debt or uncollectible accounts that other customers must cover.

Other ramifications of the affordability issue also are becoming apparent. If a customer base cannot support the cost of water service, potential lenders may be concerned about the utility's financial health and ability to meet debt obligations. Moreover, disconnecting

residential water customers can present a public relations nightmare for utilities, particularly because essential services are involved. Increasingly, problems of bad debt also extend to nonresidential utility customers. Financial distress and bankruptcies in the commercial and industrial sectors can leave utilities holding the bag. However, the larger issue of affordability is primarily a concern with respect to low-income residential consumers.

For low-income customers, who have little choice but to buy service from the local utility, paying more for basic water service means going without less essential and more discretionary products and services. Thus, rising water prices can contribute to deterioration in the quality of life for low-income utility customers. While larger systems can spread the cost of providing assistance to low-income customers, a small system with an impoverished customer base has no opportunities for even limited subsidization.

6. Examples of Single-Tariff Pricing

All utility pricing involves some form of *averaging*. Utility systems do not establish a rate for Customer A based on the cost of serving Customer A, a rate for Customer B based on serving Customer B, and so on. Doing so might be considered efficient and equitable, but it also would be extraordinarily costly from an administrative standpoint (that is, the transaction costs would be astronomical). Instead, utility systems tend to group customers into customer classes—residential, commercial, and industrial—based on similarities in the cost of serving customers in those categories. Occasionally, a unique customer (often a large-volume customer, such as a food-processing plant) might be able to negotiate a special rate based on unique cost-of-service characteristics, but most customers pay a rate based on cost averaging.

Basic Single-Tariff Pricing

Single-tariff pricing basically is the conceptual "opposite" of zonal or spatially differentiated pricing. Single-tariff pricing suggests that ratemakers should de-emphasize spatial differences in costs; costs are aggregated rather than disaggregated. One of the chief advantages of single-tariff pricing, from the utility's standpoint, is simplification. Single-tariff pricing does not negate the need to determine the revenue requirement and to allocate the revenue requirement among customer classes. It may still be necessary for the utility to maintain cost data for separate facilities and services in accordance with accepted accounting practices and regulatory reporting standards. Once revenue requirements are established, however, the *allocation* process is greatly simplified because it is unnecessary to spatially allocate common costs (that is, costs that are not site-specific). Total costs simply are spread over the consolidated customer base and only one rate is designed for each class of customers or service.

A sample calculation of a single-tariff price is provided in Table 5. In this very simple illustration, the cost of service and total water sales are varied for three separate service territories (A, B, and C). A relatively modest amount of water usage (5,000 gallons per month or 60,000 gallons per year) is assumed. The number of residential connections and the annual cost of service are varied to reflect differences in costs and economies of scale. For simplicity, only residential customers are considered.

Service Territory A is in the most favorable position, in terms of economies of scale (number of customers and sales volume); Service Territory C is in the least favorable position, which accounts for the higher costs per connection and per sales. A stand-alone tariff results in a cost of service equivalent to $1.94, $2.08, and $2.78 per 1,000 gallons of water service in the three respective service territories. The transition to single-tariff pricing would result in a rate of $2.11 per 1,000 gallons for all customers in all three service territories.

The illustration reveals the resulting shift in cost responsibility from the customers in the larger Service Territory A to the smaller Service Territory C. However, the *decrease* in rates to customers in Service Territory C of 67 cents per 1,000 gallons (24.1%) is offset

Table 5
Sample Calculation of Single-Tariff Pricing

Service Territory A		
Total residential connections		6,000
Total annual water use per connection		60,000
Total annual water sales (gallons)		360,000,000
Total annual cost of service		700,000
Annual cost per connection		$116.67
Cost per 1,000 gallons sold		$1.94
Service Territory B		
Total residential connections		2,000
Total annual water use per connection		60,000
Total annual water sales (gallons)		120,000,000
Total annual cost of service		250,000
Annual cost per connection		$125.00
Cost per 1,000 gallons sold		$2.08
Service Territory C		
Total residential connections		1,500
Total annual water use per connection		60,000
Total annual water sales (gallons)		90,000,000
Total annual cost of service		250,000
Annual cost per connection		$166.67
Cost per 1,000 gallons sold		$2.78
Combined Service Territory		
Total residential connections		9,500
Total annual water use per connection		60,000
Total annual water sales (gallons)		570,000,000
Total annual cost of service		1,200,000
Annual cost per connection		$126.32
Cost per 1,000 gallons sold		$2.11
Rate Impact of Single Tariff	**Per 1,000 Gallons**	**Percentage Change**
Service Territory A	+17 cents	+8.8%
Service Territory B	+3 cents	+1.4%
Service Territory C	-67 cents	-24.1%

Source: Author's construct. For simplicity, only residential customers are considered and a price-elasticity adjustment (that is, a usage response to the change in price) is not included in the illustration.

primarily by the relatively smaller *increase* in rates to customers in Service Territory A of 17 cents per 1,000 gallons (8.8%). The larger number of customers in Service Territory A lessens the impact of the rate adjustment on a per customer basis. Customers in Service Territory B are least affected, experiencing an increase of 3 cents per 1,000 gallons (1.4%) in rates. The lower cost-of-service in Service Territory B (relative to the number of connections served) in comparison to Service Territory C accounts for the difference in the rate impact.

In practice, rate design for public utilities is far more complex.[52] (See Appendix C.) Utilities must analyze the cost of service, including the cost of capital, and determine revenue requirements for the period over which rates will be set (the "test year"). A utility's costs will be allocated according to customer groups (or classes) and the demand characteristics of those groups. Typically, residential customers are distinguished from nonresidential customers, the latter of which are further divided into commercial and industrial classes.

Variations of Single-Tariff Pricing

Utility tariffs, or rate structures, actually have various components. These components make it possible for utilities to approach single-tariff pricing in different ways depending on system cost characteristics and the nature of the current rate structure. Table 6 illustrates three variations. In the first, uniformity is established only for the fixed charge portion of the utility bill. In the second variation, fixed charges vary and uniformity is established for the variable portion of the utility bill. The third variation is the more complete example of single-tariff pricing, where both fixed and variable charges are made uniform.

These variations can be used to phase-in single-tariff pricing over time, as illustrated in Table 7. A phase-in plan reflects the principle of gradualism in ratemaking. A significant change in rate levels or rate design can be implemented in phases, rather than at once, in order to reduce rate shock to customers and revenue instability to the utility. In this example, the utility first consolidates fixed charges and gradually consolidates the variable rate. Many utilities have used a phased approach to implementing single-tariff pricing, with the encouragement and approval of regulators.

At least three other variations of single-tariff pricing can be identified. First the utility can retain current rate differentials and equalize future rate increases. This addresses the rate shock issue while maintaining rate differences based on historical differences in costs. Second, the utility can use rate "bands" to establish tariffs for groups of systems with similar cost characteristics. Third, the utility can combine rate equalization with the strategic use of short-term or mid-term surcharges to pay for extraordinary costs associated with blending the operations of multiple systems. Each of these methods has been implemented on at least one occasion.

[52] Beecher and Mann (1990).

Because of rising costs, and the need for rate customers to gradually become accustomed to higher rates, it may not be desirable to lower rates at all for any customer group. Rather, it may be advisable to "cap" higher rates in the higher-cost areas and gradually increase rates in the lower cost areas. Although customers should be educated about changes in the rate structure, a phased approach and a price-cap approach might help mitigate complaints about cost shifting.

Table 6
Pricing Variations for Fixed and Variable Water Charges

	Before Implementation		After Implementation	
	Fixed Charge	Variable Rate	Fixed Charge	Variable Rate
Variation 1: Change to Single Fixed Charge Only				
Service Territory A	$6.00 per month	$1.95 per 1,000 gallons	$7.50 per month	$1.95 per 1,000 gallons
Service Territory B	$9.00 per month	$2.15 per 1,000 gallons	$7.50 per month	$2.15 per 1,000 gallons
Variation 2: Change to Single Variable Rate Only				
Service Territory A	$6.00 per month	$1.95 per 1,000 gallons	$6.00 per month	$2.05 per 1,000 gallons
Service Territory B	$9.00 per month	$2.15 per 1,000 gallons	$9.00 per month	$2.05 per 1,000 gallons
Variation 3: Change to Single Tariff for Fixed Charges and Variable Rates				
Service Territory A	$6.00 per month	$1.95 per 1,000 gallons	$7.50 per month	$2.05 per 1,000 gallons
Service Territory B	$9.00 per month	$2.15 per 1,000 gallons	$7.50 per month	$2.05 per 1,000 gallons

Source: Author's construct.

Table 7
Phase-In Approach to Single-Tariff Pricing

	Before Implementation		After Implementation	
	Fixed Charge	Variable Rate	Fixed Charge	Variable Rate
Phase 1: Change to Single Fixed Charge				
Service Territory A	$6.00 per month	$1.95 per 1,000 gallons	$7.50 per month	$1.95 per 1,000 gallons
Service Territory B	$9.00 per month	$2.15 per 1,000 gallons	$7.50 per month	$2.15 per 1,000 gallons
Phase 2: Adjust Variable Rates				
Service Territory A	$7.50 per month	$1.95 per 1,000 gallons	$7.50 per month	$2.00 per 1,000 gallons
Service Territory B	$7.50 per month	$2.15 per 1,000 gallons	$7.50 per month	$2.10 per 1,000 gallons
Phase 3: Equalize Variable Rates				
Service Territory A	$7.50 per month	$2.00 per 1,000 gallons	$7.50 per month	$2.05 per 1,000 gallons
Service Territory B	$7.50 per month	$2.10 per 1,000 gallons	$7.50 per month	$2.05 per 1,000 gallons

Source: Author's construct.

Two Recent Cases

In 1997, the Indiana Utility Regulatory Commission approved a hard-won plan by the Indiana-American Water Company to consolidate rates. Figure 6 illustrates the difference in revenue requirements per equivalent residential customer for stand-alone pricing, common-management pricing, and single-tariff pricing.[53] Stand-alone pricing reflects the costs that a commonly owned or managed water system would incur if it replicated the same services and functions on a basis completely independent of the parent utility and other systems. Common-management pricing reflects costs that are incurred on the basis of the joint operation of multiple systems. Costs under common management, given management economies of scale and scope, should be less for the utility than the sum of stand-alone costs for all of the operated systems.

[53] In this illustration of single-tariff pricing, the use of equivalent customers produces a comparable but not identical level of revenues per customer across all service territories because of differences in water usage.

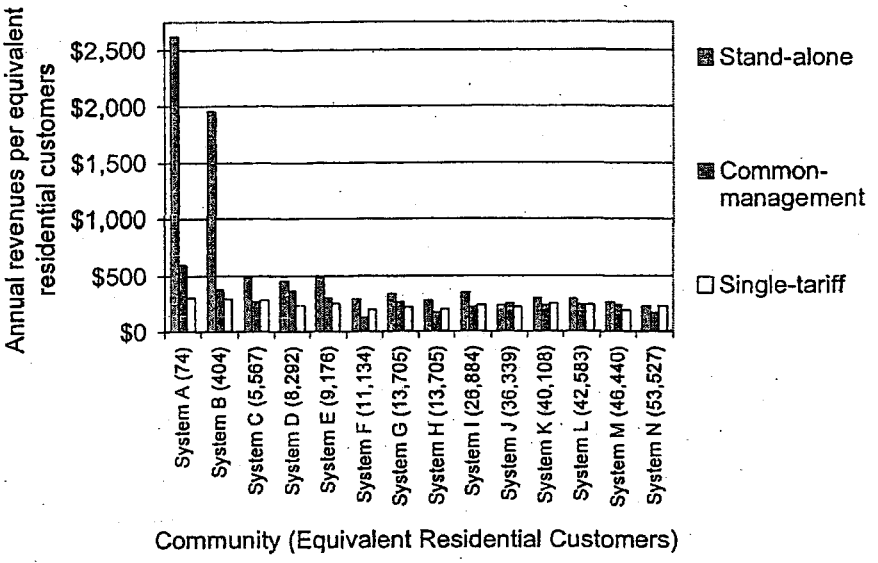


Figure 6. Revenue Requirements per Equivalent Residential Customers for Stand-Alone Costs, Common-Management Costs, and Single-Tariff Pricing

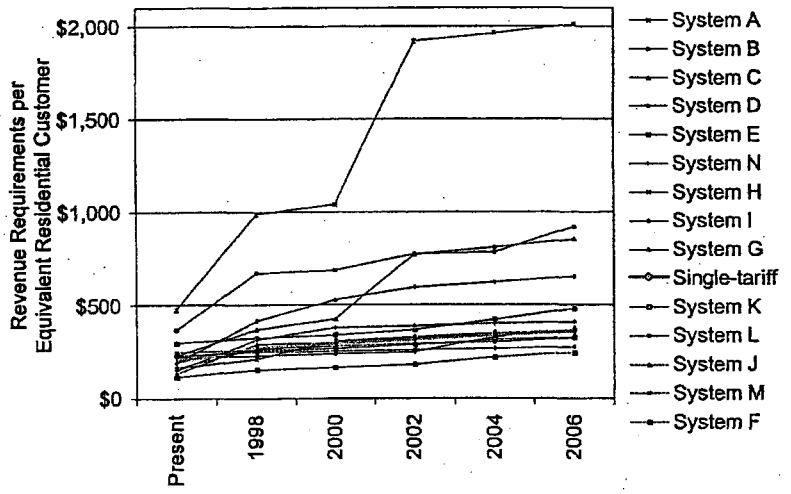


Figure 7. Forecast Revenue Requirements per Equivalent Residential Customers Including Capital Improvements

Source: John F. Guastella, Testimony in Cause No. 40703 before the Indiana Utilities Regulatory Commission, Indiana-American Water Company (1997), Exhibits JFG-5, JFG-R-1, and JFG-R-3.

For each community served, the economies of scale and scope achieved by common management are obvious. Left to their own devices, none of the communities could replicate the same level of service at the same cost. In other words, each community's true stand-alone cost would be much higher than their share of costs under consolidated operations. These cost savings are achieved independent of the pricing structure.

The additional benefits of single-tariff pricing are fairly obvious. The smaller, very high cost systems at the low end of the spectrum clearly have much to gain through rate consolidation. Both common-management and consolidated rates are a fraction of what the system would pay on a stand-alone basis. The impact of the single-tariff price on customers at the middle and higher end of the spectrum is not necessarily substantial.

The rate stabilizing effect of single-tariff pricing is illustrated by the revenue requirements forecast for the same group of utilities (Figure 7). Over time, the single-tariff provides considerable rate (and revenue) stability and, once again, the benefits for the smaller systems are clear. In this particular case, substantial rate hikes associated with planned capital improvements for four systems can be mitigated. The timing of capital expenditures will play a role in determining perceptions about the benefits of single-tariff pricing to individual communities. The obvious affordability benefits to small systems, as well as the general "smoothing" effect on revenue requirements, are among the leading rationales for single-tariff pricing.

Similar results were achieved in another recent case involving a New Hampshire utility, Pennichuck Water Works, Inc. Without rate consolidation, some water customers would face annual water bills as high as $1,200, as illustrated in Figure 8. In its decision, the New Hampshire commission directly addressed subsidy and affordability issues, as well as the anticipated benefits of adopting the single tariff:

> We do not believe it would be in the public interest to impose annual rates in the range of $800 to $1200, as would be the case here, when a reasonable alternative is available. By consolidating the community systems with the core system for ratemaking purposes, all customers would face a uniform tariff which, for the average residential customer, would be approximately $253 per year. The rates for the average residential customer in the core system would increase less than $1.00 per month, for a total of $8 per year, under the rate consolidation proposal which, in light of the alternative, we find to be acceptable. We consider a single tariff rate of approximately $253 per year for the core residential customer to be just and reasonable. A consolidated rate will ensure affordability and the continued viability of many of Pennichuck's community systems. It will also enable Pennichuck to operate in a more administratively efficient manner by eliminating separate general ledgers for each system, thereby reducing administrative costs.[54]

[54] New Hampshire Public Utilities Commission, Order in Docket DR 97-058, Pennichuck Water Works, Inc. (1998).

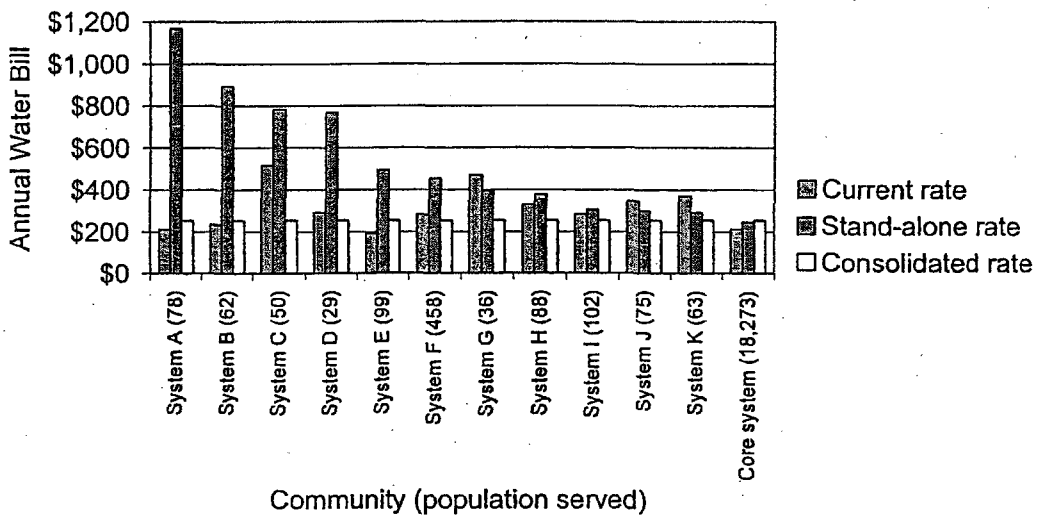


Figure 8. Stand-Alone and Consolidated Rates for Pennichuck Water, New Hampshire

Source: New Hampshire Public Utilities Commission, Order in Docket DR 97-058, Pennichuck Water Works, Inc. (1998).

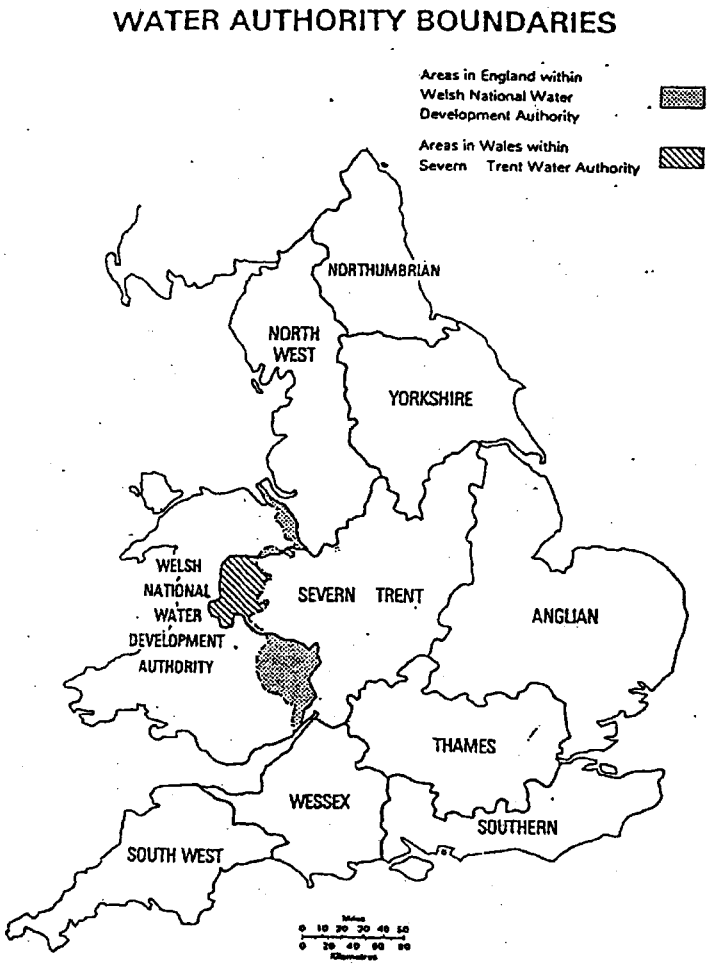
Single-Tariff Pricing in Great Britain

Great Britain provides a "real life" example of the use of single-tariff pricing on a very large scale. In 1989, Great Britain's ten large regional water, wastewater, and stormwater service providers (shown in Figure 9) were transformed from nationalized to investor-owned utilities. Since privatization, the tariffs established for *measured* (metered) service within each of the regional systems have been uniform. In other words, single-tariff pricing is implemented along with metering. Each of the water utilities provides a metering option, although a large proportion of British households is not metered. For *unmeasured* service, standing charges are uniform. However, variable charges are based not on water volumes but on the "rateable" value of properties served. These charges vary according to geographic zones for the Severn Trent and Thames water utilities, but not for the other utilities.

Tariffs for residential water service for 1995-1996 are reported in Table 8. Metered rates for large users are comprised of standing (fixed) charges that vary by meter size, plus a volumetric charge. Standing and volumetric charges are uniform for large-volume customers throughout the company service territories.

In addition to the larger privatized utilities, another twenty-one water service companies also serve somewhat smaller service territories in Great Britain, although in terms of population served almost all seem quite substantial in size when compared to many U.S. water systems. For the most part, these companies also employ single-tariff pricing. All of the twenty-one companies use a uniform standing (or fixed) charge; four have different volumetric rates for different geographic areas served.[55]

[55] For one of these companies (Three Valleys), two of three areas have comparable metered rates, suggesting a gradual move toward uniform pricing. A fifth water company (North East) adopted single-tariff pricing in the 1993-94 rate period for its two areas (each of which also is subdivided).



The ten Water Authorities in England and Wales
(reproduced by permission of the Controller of Her Majesty's Stationery Office)

Figure 9. Regional Water Utilities in Great Britain.

Source: Daniel A. Okun, *Regionalization of Water Management: A Revolution in England and Wales* (London: Applied Science Publishers, 1977).

Table 8
Metered Water Tariffs for British Water Companies, 1995-1996 (Household Customers)

Company	Service Characteristics			Tariffs for Water Service			
	Area Served	Households Served	Metered Households	Unmetered		Metered	
	km^2	(000)	(%)	Standing charge (pounds)	Rateable Value Charge	Standing charge (pounds)	Volumetric Charge p/m^3
Anglian	22,000	1,510	16.8	37.35	50.69	27.00	69.62
Dwr Cymru	20.400	1,081	2.8	81.28	38.72	33.00	75.39
North West	14,415	2,643	4.9	29.00	35.20	32.00	60.10
Northumbrian	3,850	470	0.6	52.00	27.15	31.20	53.43
Severn Trent	19,745	2,804	8.2				
Zone 1				none	45.85	27.00	62.90
Zone 2				"	41.29	"	"
Zone 3				"	40.04	"	"
Zone 4				"	41.81	"	"
Zone 5				"	48.08	"	"
Zone 6				"	50.02	"	"
Zone 7				"	50.38	"	"
Zone 8				"	40.04	"	"
East Worcester				"	41.29	"	"
South West	10.300	585	9.1	40.00	49.43	27.20	74.63
Southern	4,450	879	11.8	21.00	33.70	31.00	52.10
Thames	8,200	3,022	5.4				
Area 1				14.00	25.41	20.00	48.14
Area 2				"	25.85	"	"
Area 3				"	19.45	"	"
Area 4				"	23.29	"	"
Area 5				"	29.90	"	"
Area 6				"	25.90	"	"
Area 7				"	35.63	"	"
Wessex	7,350	435	9.7	24.00	45.45	30.50	67.78
Yorkshire	13,900	1,729	6.0	22.00	56.60	25.00	64.20

Source: Office of Water Services, *1995-96 Report on Tariff Structure and Charges* (Birmingham, UK: Office of Water Services, 1995

7. The Public Utility Commission Role

Regulation of the water industry, like the water industry itself, is fragmented and pluralistic. All community water systems, regardless of their ownership, are subject to federal and state drinking water regulations pursuant to the federal Safe Drinking Water Act. Drinking water standards focus on public health concerns. Water systems in many states also are subject to water quantity regulations, meaning that water withdrawals are regulated through registration or permitting mechanisms. Economic regulation of water utility prices and rates of return is the domain of the state public utility commissions. The commissions play a quasi-administrative, quasi-legislative, and quasi-judicial role in terms of overseeing the utility industries.

Although their jurisdiction for the water industry is not comprehensive, and generally applies only to investor-owned water systems, the state public utility commissions have specific authority and expertise in the area of pricing. Moreover, many commission-regulated systems are small in size. Thus, pricing practices in general, and commission policies in particular, are worth considering when crafting solutions for small systems.

Forty-five commissions presently have authority to regulate investor-owned water utilities. In some of the states, commission regulation extends to other types of water utilities under certain circumstances. For example, some states regulate municipal water utilities if they provide service outside of municipal boundaries. In Florida, counties can opt to regulate water systems; in Indiana, municipal water utilities can opt to be regulated. In terms of commission jurisdiction and authority, many variations among the states can be found.

Not all water utilities are subject to commission regulation. Most water utilities in the United States are publicly owned and not subject to state economic regulation. The state public utility commissions do not regulate water utilities in Georgia, Michigan, Minnesota, North Dakota, South Dakota, or Washington, D.C.

Number of Regulated Utilities

Periodic surveys have been conducted for the purpose of counting the number of regulated water and wastewater systems. As noted earlier, for 1995 the total number of commission-regulated water utilities in the United States was approximately 8,537.[56] Approximately 4,095 regulated water utilities are classified as investor-owned water utilities.[57] Table 9 summarizes the 1995 inventory of commission-regulated water and wastewater utilities.

[56] Beecher (1995).

[57] These data include 15 investor-owned utilities and 3 homeowners' associations that no longer are regulated in Michigan.

Table 9
Commission-Regulated Water and Wastewater Utilities

Utility Ownership	Water Utilities		Wastewater Utilities	
	Number of Commissions	Number of Utilities	Number of Commissions	Number of Utilities
Investor-owned or private	46	4,095	28	1,233
Municipally-owned	11	1,547	6	649
Districts	7	1,300	4	205
Cooperatives	4	1,436	2	50
Homeowners' associations	6	85	1	0
Nonprofits	1	73	1	15
Other	1	1	0	0
Totals	46	8,537	28	2,152

Source: Janice A. Beecher, *1995 Inventory of Commission-Regulated Water and Wastewater Utilities* (Indianapolis, IN: Center for Urban Policy and the Environment, 1995). Includes data for Michigan, which ceased regulating 18 systems in 1996.

Leading states in terms of the number of regulated water utilities are Texas (3,300), Mississippi (740), Wisconsin (573), West Virginia (421), Arizona (354), and New York (354). For investor-owned water utilities, leading state jurisdictions are Texas (1,200), Arizona (354), New York (334), North Carolina (226), Florida (210), California (199), and Pennsylvania (190).

Between the 1989 and 1995 surveys, the number of regulated investor-owned utilities declined by 445 utilities (10 percent); the total number of regulated utilities declined by 1,398 utilities (14 percent).

States in which the number of regulated water utilities (including investor-owned utilities) declined by a substantial amount include Arizona, Connecticut, Indiana, New York, North Carolina, Pennsylvania, and Texas. Commission sources suggest that mergers and acquisitions were the leading cause of the decline. Systems rarely cease operations altogether. However, transfers to unregulated ownership forms and changes in commission jurisdiction also can contribute to the decline in the number of regulated utilities. A few states, including Mississippi and Oregon, had substantial increases in the number of utilities under their jurisdiction. Nebraska's gain is noteworthy because jurisdiction for the water industry was initiated in 1994.

The decline in the number of regulated utilities is consistent with an anticipated trend in industry consolidation. Mergers and acquisitions within both the public and private segments of the industry will gradually reduce the number of regulated utilities. However, the population served by regulated utilities will not necessarily decline as a result of reductions in the total number of regulated utilities.

Despite the decline in the number of regulated water utilities, water utility regulation continues to rise in importance on the agendas of many state commissions.[58] Economic regulation of water utilities is important given monopoly power, rising costs, structural change, and a degree of uncertainty about the industry's future.

Capacity-Development Policies

The commissions, which are well aware of the precarious condition of many small water systems, can and have addressed capacity development through three basic strategies. The first strategy involves slowing the creation of new water systems. State regulations can create substantial barriers to entry for new water systems. Many of the state commissions, as well as the state drinking water agencies, are tightening the certification process and more carefully scrutinizing the financial, managerial, and technical competencies of proposed new systems.

The second strategy involves procedural simplification for small water systems to lower the administrative cost of regulation and enhance regulatory compliance. This strategy includes simplifying filing and reporting procedures. In some cases, commission staff members directly assist managers of small water utilities in meeting procedural requirements. Some of the commissions have used alternative regulatory methods, such as operating ratios, to further simplify the process and address the unique needs of small systems. Regulatory simplification treats one of the primary symptoms of small-system capacity problems (that is, regulatory compliance), but it does not necessarily treat the underlying capacity problem (that is, lacking economies of scale).

The third strategy involves structural change in the water supply industry. As noted in a report of the National Regulatory Research Institute, the least-cost solution to regulatory compliance and other problems for many systems can be found only through structural change, namely consolidation.[59] The downward trend in the number of water systems suggests that ownership consolidation may be occurring in the industry. Consolidated systems may or may not be physically interconnected. While physical interconnection yields significant economies of scale, common management of noninterconnected systems directly addresses financial, managerial, and technical capacity issues and can yield significant economies.

Many of the commissions have played an active role in this area by encouraging and approving mergers and acquisitions. Some of the commissions provide specific incentives, such as acquisition adjustments. Certain ratemaking practices, including single-tariff pricing, also can provide incentives for acquisitions and, perhaps, the formation of regional water systems. Larger systems interested in acquiring smaller systems tend to favor rate consolidation (sometimes with surcharges).

[58] In the late 1990s, however, water issues must compete for the attention of regulators with major restructuring issues in the energy and telecommunications sectors.
[59] Beecher, Dreese, and Landers (1992).

In general, modern public policies affecting the water-supply industry, including regulatory policies, appear to support the consideration of structural options (including consolidation) that will help water systems achieve economies of scale. The emphasis on water system capacity at the federal, state and local levels will make it harder for providers to get operating certificates, water-supply permits, and special financing. Explicitly or implicitly, growth management policies in some states are calling for consolidation of water supply through interconnection with existing systems. Public policy also appears to emphasize the importance of establishing and maintaining water systems for which the population served can support the cost of water service. Thus, institutional factors also are playing a role in reducing the number of water systems.

8. Commission Survey

State public utility staff members at all of the state public utility commissions with jurisdiction for water utilities (that is, forty-five state commissions), were surveyed about the issue of single-tariff pricing in early 1996. This research was conducted by Dr. Janice Beecher on behalf of the Florida Public Service Commission. The survey was first sent by telefax in January and follow-up telephone calls were made in late January and early February to ensure the completeness and accuracy of the survey. The commission staff members who completed the survey are knowledgeable about water utility regulation and competent to complete this particular questionnaire. A copy of the survey questionnaire is attached as Appendix D. Detailed findings can be found in Appendix E.

Additional follow-up contacts were made in 1997 and 1998 to update findings on specific cases that were pending at the time of the original survey, as well as to check for any major shifts in regulatory policy. Although no significant changes were detected, updated information is noted throughout the findings.

Relevance of Single-Tariff Pricing

Single-tariff pricing for water utilities is not necessarily a policy issue for every state public utility commission. Jurisdiction for water utilities and the presence of multi-system utilities are necessary but not sufficient conditions for consolidated rates to be an issue for a given commission. Single-tariff pricing does not become an issue until a utility or the commission initiates the use of this method. Utilities with systems that are viable on a stand-alone basis, by virtue of size and other factors, may not need or want single-tariff pricing. Even when considered or implemented, single-tariff pricing may not be considered "an issue" if it is noncontroversial.

The consideration of single-tariff pricing policy can benefit from the perspective provided in Table 10. The relevant sample for considering commission policy with regard to single-tariff pricing is comprised not of all fifty-one public utility commissions (including the District of Columbia). It is more accurate and reasonable to evaluate commission policies with regard to this issue in the context of the twenty-five commissions where multi-system water utilities operate and where the issue has been considered (including the states where single-tariff pricing had been rejected or considered but not approved). Given this context, a clear majority of affected state commissions have allowed regulated water utilities to implement single-tariff pricing (22 state commissions).

Of the remainder, the California commission has allowed partial rate consolidation. For two commissions (Maryland and Mississippi), single-tariff pricing had not been an issue but staff characterized commission policy as "case-by-case." It also is noteworthy that in one of the state's approving a single-tariff pricing structure (Idaho), the matter was "not an issue when proposed." No regulatory commission has steadfastly opposed single-tariff pricing, although many continue to review the merits on case-by-case basis.

TABLE 10
RELEVANT SAMPLE OF STATE PUBLIC UTILITY COMMISSIONS REGARDING THE ISSUE OF SINGLE-TARIFF PRICING POLICY

All state public utility commissions:	**51**
Commissions without jurisdiction for water utilities:	-6
Subtotal	**45**
Commissions without multi-system water utilities:	-15
Subtotal	**30**
Commissions for which single-tariff pricing has never been considered:	-5
Total	**25**

Source: Author's construct. Includes reclassification of Delaware as having a multi-system utility based on a 1999 survey. The total number of commissions includes the District of Columbia.

Pending cases at the time of the original survey in Massachusetts and New Jersey were decided in favor of single-tariff pricing. Soon after, in two significant cases, the Indiana and New Hampshire commissions approved rate consolidation proposals (in 1997 and 1998 respectively). Since the original survey, the Delaware commission approved single-tariff pricing in conjunction with an acquisition that created the state's only multi-system utility (as reflected in Table 10 and elsewhere).

General Findings

The detailed results of the original survey are reported in Appendix E (Tables E1 through E4). The data are reasonably complete for all fifty-one public utility commissions (including the District of Columbia commission). Detailed data on specific utilities are incomplete from a few states because of the difficulty in compiling these data.

As noted in the tables, six public utility commissions do not have jurisdiction for water utilities ("NJ"). In sixteen (16) of the states with jurisdiction for water utilities, staff had observed that no multi-system water utilities were in operation (including Delaware at the time of the original survey). This finding also was established in the *1995 Inventory Report,* which was used to supplement this survey. For the remainder of the survey, responses for these sixteen states were recorded as "NA," or "not applicable."

Thirty (30) state commissions regulate multi-system water utilities, where single-tariff pricing is a potential issue. Of the thirty (30) commissions with multi-system water utilities, twenty-two (22) have approved single-tariff pricing for one or more utilities, including partial consolidation. California regulators have allowed partial consolidation

subject to further deliberations. Seven commissions (7) have not directly addressed this issue. As already noted, these findings have been revised since the original survey to update the findings for five states (Delaware, Indiana, Massachusetts, New Hampshire, and New Jersey) where pending and recent cases have been decided in favor of single-tariff pricing (in Massachusetts, partial consolidation already had occurred).

Of the twelve (12) commissions that had not approved single-tariff pricing at the time of the original survey, three explanations were provided: single-tariff pricing had not been an issue (7 commissions), a proposal for single-tariff pricing was rejected (1 commission), and single-tariff pricing had been considered but not specifically approved (4 commissions). The Indiana commission reportedly rejected single-tariff pricing because of cost-of-service concerns. No commission staff member reported that a statute or policy expressly prohibited single-tariff pricing. However, the Florida survey response indicated that legislation had been proposed to limit the use of rate consolidation to interconnected systems; the legislation was not adopted.

Specific Findings

Data were provided for 213 multi-system utilities, of which 129 had implemented a full version of single-tariff pricing and 20 had implemented partial rate consolidation (that is, single-tariff pricing for all but a few systems or single-tariff pricing for groups of systems within the utility but not for the utility as a whole). Partial rate consolidation in some cases is used to phase-in the single tariff. The survey does not include the multi-system utilities in Texas (estimated at 200 to 300 utilities) or all of the multi-system utilities in Florida (estimated at 60 to 70 utilities) because these data were not readily available. Other states also may have some additional multi-system utilities for which data were not reported. The survey also excludes publicly owned water utilities, with the exception of West Virginia for which data were available for commission-regulated public service districts.

Several states have jurisdiction for only one multi-system water utility. States with more than ten multi-system utilities are Connecticut, Florida, Louisiana, North Carolina, Texas, Washington, and West Virginia. Of these states, only Louisiana has not approved single-tariff pricing.

Based on the available data from the original survey, the number of systems managed by the multi-system utilities ranges from 2 to 201. The average number of systems reported is 11; the median number of systems was 4. The number of connections for the smallest system ranged from 2 to 30,000 with a mean value of 751 and a median value of 30 (based on data for 115 systems). The number of connections for the largest system ranged from 18 to 329,000, with a mean value of 11,615 and median value of 257 (based on data for 115 utilities). The earliest date reported for adopting single-tariff pricing was 1958; the most recent date was 1995 (disregarding the pending or subsequent cases). The average and median time frame for adopting single-tariff pricing was the early 1980s.

At the time of the survey, rate consolidation had been partially implemented for several utilities. In some cases, all but a few systems had been placed under a single tariff; in other cases, the single tariff was being phased-in gradually over time. Only one commission reported that monitoring and evaluation of single-tariff pricing had occurred in the form of reexamining past rate cases (West Virginia).

Characteristics of Single-Tariff Utilities

Single-tariff utilities appear to have some distinguishing features in comparison to multi-system utilities that do not use single-tariff pricing. Data were provided for 213 utilities, of which 129 implemented single-tariff pricing or partial rate consolidation. Data on the approximate number of systems were provided for 203 utilities (149 single-tariff utilities and 54 multi-system utilities without single-tariff pricing). Data on the smallest and largest systems in terms of service connections were available for 115 utilities (81 single-tariff utilities and 34 multi-system utilities without single-tariff pricing). All available data were used to preserve as much information as possible for the analysis. For data reported as a range of values, an average was used (for example, "8 to 9" was replaced with 8.5). For data reported as "<5," a value of 4.5 was used.

The sample is incomplete and nonrandom, so findings based on the available data are not generalizable. Substantial missing data will affect the results of any analysis. However, the data represent a sizable portion of the multi-system utilities regulated by the state commissions. Also, many states reported a mixture of systems with and without single-tariff pricing. Certain observations can be drawn from the data that should lead to further consideration and analysis.

As reported in Table 11 (and Table E2), single-tariff systems and multi-system utilities appear to differ in terms of the number of systems that comprise them, smallest connections, and largest connections. For single-tariff systems, the median number of systems was 5 (average value of 13); for multi-system utilities without single-tariff pricing the median number of systems was 4 (average value of 6). The connection data reveal more striking patterns. Along every measurement (except for the minimum of 2 connections for the smallest systems for both utility types), single-tariff utilities appear to be much smaller in terms of both smallest and largest systems based on connections.

This finding is very consistent with the perception that single-tariff pricing is most needed, and perhaps most justified, when numerous very small water systems are involved. These data may indicate that commission approval of single-tariff pricing takes into account these basic descriptive characteristics. This is not to suggest, however, that single-tariff pricing only has been (or should be) approved for utilities made up of very small systems. In fact, some of the more recent decisions affirming single-tariff pricing have involved utilities with systems that are fairly substantial in size.

Table 11
Comparative Analysis of Multi-System Utilities With and Without Single-Tariff Pricing

Utilities	Number of Utilities Reported		Approximate Number of Systems				Smallest System (N Connections)				Largest System (N Connections)			
	Approx. Systems	Connec-tions	Mini-mum	Maxi-mum	Aver-age	Median	Mini-mum	Maxi-mum	Aver-age	Median	Mini-mum	Maxi-mum	Aver-age	Median
All Multi-System Utilities	203	115	2	201	11	4	2	30,000	751	30	18	329,000	11,615	257
Multi-System Utilities With Single-Tariff Pricing	149	81	2	201	13	5	2	2,400	122	20	18	97,000	5,651	193
Multi-System Utilities Without Single-Tariff Pricing	54	34	2	32	6	4	2	30,000	2,251	82	26	329,000	25,824	1,254

Source: Table E1. Not adjusted for cases pending at the time of the survey or subsequent cases in which consolidated rates were approved for individual utilities in Delaware, Indiana, Massachusetts, New Hampshire, and New Jersey.

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Arguments in Favor of Single-Tariff Pricing

In the course of the survey, regulatory commission staff members were asked to consider key arguments for and against the adoption of single-tariff pricing. Various reasons for commission approval of rate consolidation were provided in the survey. Table E1 provides the primary reasons for approval. Cost savings were frequently mentioned. As reported in Table E3, commission staff members also were asked to identify the arguments that influenced their commissions' deliberations or policies regarding rate consolidation.

These data reflect only staff member views, not necessarily the views or policies of the commissions. Twenty-one (21) commission staff members responded to this portion of the survey. The data exclude thirty commissions where, at the time of the survey, single-tariff pricing had not been an issue and staff views were not elicited. [60] Staff could cite more than one argument and no weighting or ranking of arguments was required. In decreasing order of mentions (indicated in parentheses), commission staff indicated agreement with the following arguments in favor of single-tariff pricing:

- Mitigates rate shock to utility customers (17)
- Lowers administrative costs to the utilities (16)
- Provides incentives for utility regionalization and consolidation (15)
- Physical interconnection is not considered a prerequisite (13)
- Addresses small-system viability issues (13)
- Improves service affordability for customers (12)
- Provides ratemaking treatment similar to that for other utilities (10)
- Facilitates compliance with drinking water standards (9)
- Overall benefits outweigh overall costs (9)
- Promotes universal service for utility customers (8)
- Lowers administrative cost to the commission (8)
- Promotes ratepayer equity on a regional basis (6)
- Encourages investment in the water supply infrastructure (5)
- Promotes regional economic development (3)
- Encourages further private involvement in the water sector (2)
- Other: Can be consistent with cost-of-service principles (1) and found to be in the public interest (1)

Staff members also noted that single-tariff pricing could be consistent with cost-of-service principles (New York), that separating small-system costs may not always be cost-effective (Virginia), and that the genesis for the issue was regulatory simplification (California). Mitigating rate shock also was equated with "rate stability" (Indiana). Vermont regulators found that single-tariff pricing addressed small system viability issues and generally was in the public interest, approving the method over the objections of staff

[60] Excluded were 6 commissions without jurisdiction for water utilities, 16 commissions without jurisdiction for multi-system water utilities ("not applicable"), and 8 commissions that regulate multi-system utilities but where single-tariff pricing has not been an issue (including the Idaho commission, where single-tariff pricing was approved for one utility but not an issue of significance).

members concerned about subsidization issues. Typically, more than one argument affects commission deliberations regarding rate consolidation.

Arguments Against Single-Tariff Pricing

Commission staff members also evaluated the key arguments against rate consolidation. Various reasons for commission disapproval of single-tariff pricing were provided. Table E1 provides the primary reason for the disapproval. Cost-of-service issues were frequently mentioned, although some staff also indicated that single-tariff pricing could be consistent with cost-of-service principles. As reported in Table E4, commission staff members also were asked to identify the arguments that influenced their commissions' deliberations or policies regarding rate consolidation.

These data reflect only staff member views, not necessarily the views or policies of the commissions. As mentioned earlier, twenty-one (21) commission staff members responded to this portion of the survey based on their experience with the issue of single-tariff pricing for multi-system utilities. Staff could cite more than one argument and no weighting or ranking of arguments was required. In decreasing order of mentions (indicated in parentheses), commission staff indicated agreement with the following arguments against single-tariff pricing:

- Conflicts with cost-of-service principles (14)
- Provides subsidies to high-cost customers (12)
- Not acceptable to all affected customers (10)
- Considered inappropriate without physical interconnection (8)
- Distorts price signals to customers (7)
- Fails to account for variations in customer contributions (6)
- Justification has not been adequate in a specific case (or cases) (6)
- Discourages efficient water use and conservation (4)
- Encourages growth and development in high-cost areas (4)
- Undermines economic efficiency (3)
- Provides unnecessary incentives to utilities (2)
- Not acceptable to other agencies or governments (2)
- Insufficient statutory or regulatory basis or precedents (2)
- Overall costs outweigh overall benefits (2)
- Encourages overinvestment in infrastructure (1)

Regarding unacceptability to other agencies or governments, the California staff member noted that opposition to single-tariff pricing had come from other utilities.

9. Commission Policies on Rate Consolidation

As already noted, twenty-two (22) state commissions have allowed regulated water utilities to implement single-tariff pricing. Single-tariff pricing is generally accepted in eight (8) states, as summarized in Table 12 and Figure 10 (and detailed in Table E1). Texas commission staff members noted that single-tariff pricing was accepted "and preferred." In fact, the Texas commission provides a simplified procedure for merging the rates of acquired systems with the rates of the acquiring utility. While the regulated water utility usually requests consolidated rates, at least one commission (New York) has imposed its use. Pennsylvania staff noted that the use of single-tariff pricing has evolved from its application on the basis of physical interconnection to its application on the basis of common ownership.

Based on the updated survey findings, staff members at seventeen (17) commissions characterized the policies of their commissions as "case-by-case," indicating that the use of single-tariff pricing must be justified for every specific application (even when the policy is "generally accepted"). In many states, only some of the multi-system utilities under commission jurisdiction are implementing single-tariff pricing. In fourteen (14) of the case-by-case commissions, single-tariff pricing has been approved (including the five recent cases decided in favor of single-tariff pricing). In California, regulators have approved partial rate consolidation. In the two (2) other case-by-case commissions, single-tariff pricing has not been approved or considered in the context of a regulatory proceeding.

Commission Decisions

The experience of West Virginia-American Water Company stands as one of the least controversial and most enduring examples of single-tariff pricing. Implementation of single-tariff pricing has played a role in the company's expansion. A case study of the West Virginia experience appeared in a 1984 issue of the *American Water Works Association Journal.*[61]

In its order, the West Virginia Public Service Commission considered the consistency of single-tariff pricing with the commission's general regulatory obligations and operating principles, finding that:

1. The company's single tariff pricing proposal resulted in a just, reasonable, sufficient and nondiscriminatory rate for all the customers of the company.
2. Each customer will pay the same rate for a like and contemporaneous service made under the same or substantially similar circumstances and conditions.

[61] Limbach (1984).

Table 12
Summary of State Public Utility Commission Policies on Single-Tariff Pricing for Water Utilities

Commission Policy	State Commissions	
Generally Accepted (8)	Connecticut	Pennsylvania
	Missouri	South Carolina
	North Carolina	Texas
	Oregon	Washington
Case-By-Case (17)	Single-Tariff Pricing Has Been Approved (14)	
	Arizona	New Hampshire (d) (f)
	Delaware (a)	New York
	Florida	New Jersey (e) (f)
	Idaho (not an issue)	Ohio
	Illinois	Vermont
	Indiana (b) (f)	Virginia
	Massachusetts (c) (f)	West Virginia
	Single-Tariff Pricing Has Not Been Approved (3)	
	California (g)	
	Maryland (not an issue)	
	Mississippi (not an issue)	
Never Considered (5)	Iowa	Maine
	Kentucky	Wisconsin
	Louisiana	
Not Applicable – No Multi-System Water Utilities (15)	Alabama	Nevada
	Alaska	New Mexico
	Arkansas	Oklahoma
	Colorado	Rhode Island
	Hawaii	Tennessee
	Kansas	Utah
	Montana	Wyoming
	Nebraska	
No Jurisdiction for Water Utilities (6)	Georgia	North Dakota
	Michigan	South Dakota
	Minnesota	Washington, D.C.

Source: Author's construct based on survey of state public utility commission staff members, January-February 1996 and subsequent contacts with the commissions (including a follow-up survey in early 1999).

(a) Reclassified from "not applicable" following an acquisition with approval of consolidated rates.
(b) Since the original survey, a case was decided in favor of single-tariff pricing (previously rejected).
(c) A pending case at the time of the original survey was decided in favor (partial consolidation previously).
(d) Since the original survey, a case was decided in favor of single-tariff pricing.
(e) A pending case at the time of the original survey was decided in favor.
(f) Characterization of commission policy as "case-by-case" was unchanged following the recent decisions.
(g) Partial consolidation with possible phase-in of single-tariff pricing. A case was pending in 1999.

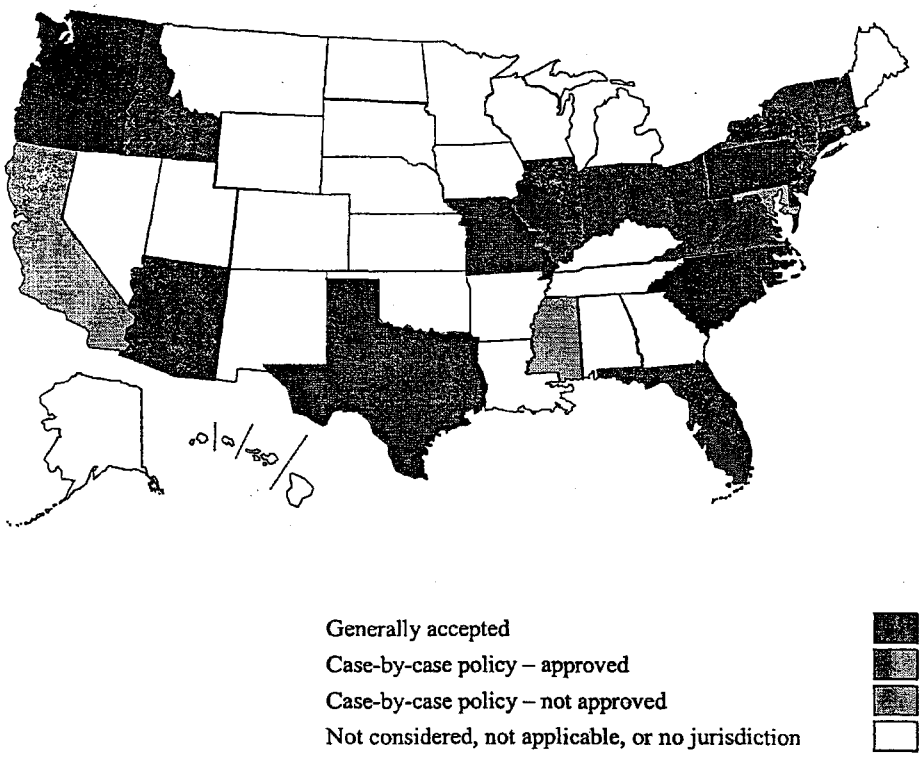

Figure 10. Summary of Commission Policies on Rate Consolidation.

3. The approval of the company's proposal was in compliance with the commission's duty to regulate utilities of this state in order to provide the availability of adequate, economical, and reliable utility services to encourage the well planned development of the utility resources in a manner consistent with the state needs and in a way consistent with the productive use of the state's energy resources.
4. Single tariff pricing strikes a reasonable balance in the interest of current and future water consumers, the general interest of the state's economy, and the interest of West Virginia Water Company.[62]

[62] Order of the West Virginia Public Service Commission as cited in Limbach (1984), 55.

In a 1986 order, the Pennsylvania Public Utility Commission approved single-tariff pricing for Western Pennsylvania Water Company (1986) and provided several pragmatic reasons for approving this pricing strategy.[63] First, a larger rate and revenue base ameliorates the impact of major capital additions needed from time to time in every service area. Second, a larger revenue base promotes flexibility in timing and financing major capital additions. Third, the impact of instability resulting from changes in sales volumes is mitigated when the effect of such volumetric factors is spread over a larger economic base. Finally, the reduction of the number of accounting units and the number of individual rate filings result in administrative efficiency with a potential to reduce costs to ratepayers.

Ten years later, in a general proceeding on acquisition policy, the Pennsylvania Commission stated its belief "that every system and every ratepayer in the Commonwealth will eventually be in need of specific service improvements and at that point, the true benefits of single tariff pricing will be realized by all citizens in the Commonwealth."[64] The Commission now views single-tariff pricing as a central component of acquisition incentives provided to jurisdictional utilities.

Although single-tariff pricing has been approved without much consternation in some jurisdictions, in others the level of controversy has been much more pronounced. Consumer advocates, local governments, large-volume users, and commission staff members (even within agencies) have at times been deeply divided on this issue.

The regulatory commissions have struggled in particular with whether or not *physical interconnection* among water systems should be a prerequisite for single-tariff pricing.[65] As noted by the Massachusetts Department of Public Utilities, physical interconnection is not necessarily required: "[S]everal factors (viz., the contiguity of the communities served in that zone; the commonality of personnel for meter-reading, operations, maintenance, and construction duties; and administrative convenience) are decisive in favor of treating the [two communities] as a single zone . . ."[66]

Similarly, the Florida Public Service Commission once concluded that state law supports the view that multi-system utilities can be considered a single system because the utility's facilities and land are *functionally related* (in administrative, operational, and managerial terms); even without physical interconnection.[67] An analogy provided in the case was that the multi-system utility operations were like a "wagon wheel," where the separate service territories are the spokes and utility management is the rim holding them together.

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[63] Pennsylvania Public Utility Commission, Order in Docket R-850096, Western Pennsylvania Water Company (1986), 148.

[64] Pennsylvania Public Utility Commission, Order in Docket M-00950686, Policy Statement Re: Incentives for the Acquisition and Merger of Small, Nonviable Water and Waste Water Systems (1996).

[65] Physical interconnection in the other industries may be the reason why pricing across larger regions tends to prevail.

[66] Massachusetts Department of Public Utilities, Order in Docket No. 90-146, Massachusetts-American Water Company (1990), 3-4. See also MA DPU 95-118 (1996).

[67] Florida Public Service Commission, Order No. PSC-96-1320-FOF-WS, Docket No. 950495-WS, Southern States Utilities (1996).

Following an appeal of the Florida order, however, the District Court held that rate consolidation need not be conditioned on a finding by the commission that the systems involved are functionally related. "Because we decide that the determination of functional relatedness is not controlling on the issue of whether uniform rates can be set," noted the Court, "we express no opinion on whether the utility systems involved in this rate case were 'functionally related.'"[68]

In a 1993 case, the Illinois-American Water Company articulated the variety of ways in which the systems of a multi-system utility are *operationally related:*

> All operation and maintenance and construction activities are performed on a uniform basis throughout the five districts. . . All five districts utilize similar facilities, such as pumping stations and purification plants, transmission and distribution mains, storage reservoirs, service lines and meters. . . All five districts utilize the same engineering and construction standards, maintenance programs, operating procedures, inspection programs, budgeting and accounting procedures, types of materials and supplies and management structure. . . All five districts utilize the services of the American Water Works Service Company (the "Service Company"), which provides, pursuant to a contract with the Company, support to Illinois-American personnel in the areas of accounting, engineering operations, rate design, regulatory practices, finance, water quality, information systems, personnel information and training, purchasing, insurance, safety and community relations.[69]

The company also argued that the evolving *corporate* structure of the multi-system utility is germane to these issues, as described in Illinois Commerce Commission's order:

> According to Illinois-American, another important factor supporting the adoption of single tariff pricing are the many steps the Company has taken in recent years to centralize and consolidate its operations. . . Illinois-American, as it presently exists, is the result of two mergers. Pursuant to the mergers, which were approved by the Commission. . . water systems once operated as five separate companies were merged to form a single integrated unit, rather than as five independent, stand-alone systems.[70]

Staff members of the Illinois Commerce Commission found that "Commission practices in Illinois. . . support the uniform rate concept."[71] In this particular proceeding, the commission approved partial rate consolidation and ordered Illinois-American to submit a proposal for company-wide single-tariff pricing.

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[68] District Court of Appeal, First District, State of Florida, Decision in Case No. 96-447 (June 10, 1998), 1.
[69] Illinois Commerce Commission, Order Docket No. 92-0116, Illinois-American Water Company (1993).
[70] Ibid., 85.
[71] Ibid., 87.

In a parallel proceeding, Indiana-American Water Company argued before the Indiana Utility Regulatory Commission that single-tariff pricing is justified in part on the grounds that the company's districts are managed by a single corporate structure and financed through a common capital structure.[72] The Indiana Office of Consumer Counselor opposed this reasoning and the Indiana Commission rejected that particular bid for single-tariff pricing, but the company prevailed in a 1997 proceeding (discussed below).

Another rationale in the regulatory context is that rate consolidation can help reduce the frequency and complexity of rate filings by regulated firms. According to John Guastella, regulatory acceptance of single-tariff pricing as a matter of policy reduces costs associated with preparing separate cost-of-service studies to allocate common costs among the separate systems, and thus significantly reduces the cost of utility rate filings.[73] A related point is that rates under a single tariff are easier to communicate to customers (lowering administrative costs) and easier for customers to understand.

In some deliberations, the focus is shifted from differences in the *cost of service* to comparability in the *value of service* that utility customers receive regardless of their spatial location. Indiana-American Water Company has argued that, "The single tariff pricing concept is supported by the fact that any one of the Company's customers, regardless of where that customer is located, expects, is entitled to and receives essentially the same service as the customers in any other district."[74]

In a recent regulatory proceeding involving the New Jersey-American Water Company, the administrative law judge echoed this argument:

> Inasmuch as all customers of New Jersey-American, be they New Jersey Commonwealth or Monmouth customers, receive comparable service on a comparable basis, it seems only appropriate that all customers be charged similarly. . . By distributing the burden of system improvement to all customers, the relative impact is decreased. All Company customers in the three operating groups are benefiting by the relative economics [sic] of scale and system integration and administration the unified company produces. Likewise, all customers should equally shoulder the costs involved.[75]

The New Jersey Board of Public Utilities agreed with the administrative law judge in adopting a statewide (single-tariff) price for the New Jersey-American Water Company in this particular proceeding.

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[72] Richard E. Hargraves, Direct testimony in Cause No. 39595 before the Indiana Utility Regulatory Commission, Indiana-American Water Co., Inc. (1993).
[73] Guastella (1994).
[74] Hargraves (1993).
[75] New Jersey Board of Public Utilities, OAL Docket No. PUC 520795, Agency Docket No. WR-95040165, New Jersey-American Water Company (1996), 14-15.

Several of the commissions have implemented variations of single-tariff pricing or partial forms of rate consolidation. The Missouri Public Service Commission, for example, once reasoned that rate shock is the result of rate *changes* not rate *levels*. Thus the commission ordered the company in question to maintain existing rate differentials while equalizing future rate increases. By maintaining current rate differentials and equalizing rate increases, rate shock is minimized, subsidization is limited, and the company is afforded greater flexibility in timing plant additions.[76] The commission later found, for another company, that the movement toward rate consolidation was in the public interest.[77] But in a subsequent rate case, and to the understandable chagrin of the utility, the commission reiterated "that it is not committed to a specific position regarding cost recovery for capital plant additions by means of [single-tariff pricing]."[78]

In a phased approach, implementation of single-tariff pricing may occur over several commission decisions involving the same multi-system utility. According to a former regulator, a phase-in plan may be especially justified when differences in rates are "extreme."[79] A phased approach "facilitates the goal of single tariff pricing, but does not negate the requirement for future commission approval of its full implementation."[80]

Interestingly, zonal rates for *groups* of systems can be used in conjunction with a phased approach to rate consolidation. The Florida commission recently advanced a "capband" approach establishing rates for groups of systems with similar cost characteristics, reasoning that:

> First, the capband structure represents a greater move toward the long term goal of a uniform rate. It eliminates the need for separate rate structures for each individual service area under the cap. The number of rates would decrease from 56 to eight for the water facilities under the cap, and from 23 to six for the wastewater facilities. Second, as noted above, the capband structure reduces subsidies in terms of deviation from stand-alone rates. This is true both in terms of number of service areas and number of customers. Uniform rates within the band mitigate the subsidy within the band. . . [The capband rate structure] embraces all of the advantages of the modified stand-alone rate structure and adds the additional advantages of simplifying the rate structure by moving the utility closer to a uniform rate.[81]

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[76] Missouri Public Service Commission, Order in Case No. 90-236, Missouri Cities Water Co. (1990).
[77] Missouri Public Service Commission, Order in Case Nos. WR-95-205 and SR-95-206, Missouri-American Water Company (1995).
[78] Missouri Public Service Commission, Order in Case Nos. WR-97-237 and SR-97-238, Missouri-American Water Company (1997).
[79] Wendell F. Holland, "Acquisition Incentives Encouraging Regionalization in the Water Industry" a speech made at the Great Lakes Conferences of the National Association of Regulatory Utility Commissioners in Greenbrier, West Virginia (July 11, 1995).
[80] Pennsylvania Public Utility Commission, Western Pennsylvania Water Company, 72 PUR 4th (1986), 154.
[81] Florida Public Service Commission, Order No. PSC-96-0549-PHO-WS, Docket No. 950495-WS, Southern States Utilities (1996), 78-79.

The Florida decision was appealed on a variety of grounds. As noted earlier, the Court of Appeal held that the commission need not determine that utility facilities are "functionally related" prior to approving consolidated rates. In the same decision, the Court also found that "no statute prohibits resort by the Public Service Commission (PSC)—in an appropriate case—to so-called "capbands" to fix rates that are just, reasonable, compensatory, and not unfairly discriminatory."[82] Specifically:

> Nothing inherent in the capband methodology runs afoul of the statute. The order under review sets rates [footnote omitted] so that no ratepayer's rates exceed by more than seven per cent what they would have been if each system's rates had been set on a stand alone, cost of service basis. This modest deviation from a pure cost of service basis for individual rates pales by comparison to the magnitude of inevitable intra-system subsidization. Nor is a pure cost of service basis as to each individual ratepayer mandated by a statute which directs that "the commission shall consider the value and quality of service and the cost of providing service." § 367.081(2), Fla. Stat. (1997). See *Occidental Chem. Co. v. Mayo*, 351 So. 2d 336, 340 (Fla. 1977) ("Given the multiplicity of methods suggested by the experts to allocate expenses between various users, we cannot say that the Commission departed from the essential requirements of law in relying on a range of criteria for this purpose."). A shift in the direction of "affordability" takes the value of service into account. Although using stepped rates or "capbands" requires offsetting increases and does not spread offsets perfectly evenly among households paying less than maximum rates, such use need not lead to unfairly discriminatory rates.[83]

The Indiana Utility Regulatory Commission articulated the pragmatic rationale for single-tariff pricing in the recent Indiana-American case.[84] The press release accompanying the commission's order asserts that the company's movement toward single-tariff pricing is "in the best interest of all of the customers" and that all areas will benefit in the long term by increased rate stability and mitigation of construction cost impacts. The order found that single-tariff pricing was consistent with pricing for other utility and nonutility services and that it would help the company meet demands associated with environmental compliance, infrastructure replacement, and service adequacy for customers.[85] The commission also addressed the issue of price discrimination:

> There will always be customers who over a given period of time will be required to pay higher rates than would result if they were included in some smaller or different customer group. But this does not mean undue discrimination exists so long as they are paying an equivalent price for an equivalent product. Moreover, we must not forget that all of the customers today are the beneficiaries of water facilities

[82] District Court of Appeal, First District, State of Florida, Decision in Case No. 96-447 (June 10, 1998), 1.
[83] Ibid., 13.
[84] Indiana Utility Regulatory Commission, Order in Cause No. 40703, Indiana-American Water Company (1997).
[85] Ibid., 77.

> built in the past, and the cost of developing these facilities was borne in large part by earlier generations of customers.[86]

As a general rule, individual water utilities must make the case for single-tariff pricing before regulators, who consider the merits on a case-by-base basis. The Indiana-American decision also is instructive on this point because the case was made by the utility several times—and the arguments rejected—before regulators were persuaded that single-tariff pricing was in the public interest. As with many initiatives by utilities, regulatory approval often requires more than one attempt, as well as modifications to the proposed method to address the legitimate concerns of regulators and consumer advocates.

A few commissions have explicitly recognized single-tariff pricing as a policy tool. As already noted, Pennsylvania regulators have placed single-tariff in the broader context of regulatory policies to promote regionalization and specifically the acquisition of smaller, nonviable systems.[87] The general provisions of the commission's policy, appearing in Table 13, provides for the application of single-tariff pricing to the rates of acquired water systems "to the extent that is reasonable."[88]

Similarly, New York Public Service Commission staff members expect acquiring utilities to include a plan for "rate equalization" (with phase-in provisions as appropriate) as part of petitions for acquisition incentive mechanisms. [89]

Connecticut regulators have interpreted state statutes to authorize rate equalization in connection with mandated takeovers.[90] The commission also recognizes the potential use of annual price caps (to avoid rate shock) and surcharges ("so that customers of the acquiring company are not always obligated to assume full responsibility for the cost of ordered improvements to the acquired company").[91]

Implementation Strategies

Utility regulators can consider several implementation strategies if they find that rate consolidation is in the public interest. Implementing the single tariff can be accomplished in conjunction with acquisition proceedings. Utilities can phase-in single-tariff pricing for all or part of their service territory. A partial form of single-tariff pricing is to adopt a

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[86] Indiana Utility Regulatory Commission, Order in Cause No. 40703, Indiana-American Water Company (1997), 81.
[87] Holland (1995), 10.
[88] Pennsylvania Public Utility Commission, Order in Docket M-00950686, Policy Statement Re: Incentives for the Acquisition and Merger of Small, Nonviable Water and Waste Water Systems (1996).
[89] New York Public Service Commission, Order in Case 93-W-0962, Investigation of Incentives for the Acquisition and Merger of Small Water Utilities (1993), Appendix E.
[90] Connecticut General Statutes, 16-262o. According to Connecticut Statutes (16-262r), rate equalization also can be used in connection with satellite management of a smaller by a larger system.
[91] Connecticut Department of Public Utility Control, Order in Docket No. 96-03-31, DPUC Review of Water Companies Acquisitions and Transfer Processes (January 8, 1997), 27.

common fixed or customer charge for all utility customers, and alter variable charges based on variations in the cost of service. Utilities can use surcharges or other mechanisms to differentiate prices based on extraordinary costs and send customers a very specific price signal. A partial approach to single-tariff pricing is to develop tariffs based on groupings of systems or "zones" with roughly similar cost or service characteristics. Another partial approach, mentioned earlier, is to use a phased method of implementation by which rates are made more uniform over several rate adjustments.

Innovative pricing options and implementation strategies for water utilities can emerge in the context of regulatory proceedings, dispute resolution processes, and a continuing dialog among utilities, consumers, consumer advocates, and other interested stakeholders.

Related Strategies

Commissions may want to consider implementing specific regulatory strategies in conjunction with single-tariff pricing. First, regulators could use auditing or other evaluation techniques to establish that utilities are meeting efficiency and other performance goals. Second, the commission could coordinate with other regulatory agencies to promote compliance with water quality standards. Third, regulators could evaluate the long-term strategic plans of water utilities for serving customers throughout their service territories. Fourth, features of the consolidated rate could be assessed in terms of their effectiveness in promoting efficient water use and discouraging waste. Fifth, the commissions could implement a monitoring and evaluation system to assess the effects of consolidated rates on all systems and customer groups. Sixth, alternative dispute resolution could be encouraged to provide parties with a forum for participation and an opportunity to reach a settlement agreement on single-tariff pricing issues. Finally, regulators could assess utility efforts to communicate with customers about the value of water and build understanding of the rate structure.

Commission Authority

Commission authority to approve consolidated rates has been met with legal challenges in some jurisdictions. Obviously, single-tariff pricing policy must be consistent with a state's legislative framework and legally sustainable. Regulatory and legal doctrine generally seem to permit this pricing method. Legislative, judicial, or other constraints on rate consolidation would be undesirable from a public policy standpoint and undermine the ability of the regulatory commissions to craft effective policies for the water industry.

In a recent case, the New Hampshire Public Utilities Commission acknowledged the absence of a clear regulatory standard for, or prohibition of, the use of single-tariff pricing. The commission essentially asserted its policymaking authority to approve rate consolidation based on a public-interest standard:

> While New Hampshire law is replete with references to the appropriate standard for establishing a utility's rate base and rate of return, there appears to be no specific guidance on the point of rate consolidation or single tariff pricing. Thus, in the absence of any legal impediment to utilizing single tariff pricing, our decision essentially becomes one of policy that is bound only by our statutory constraints that rates be just and reasonable and that we act in the public interest. See RSAs 374:2 and 378:28.
>
> Opponents of rate consolidation in this case argue that we should adhere to our traditional ratemaking policy of cost causation. We find their position unpersuasive in this case for two reasons. First, traditional cost of service regulation already includes some measure of rate averaging in that customers are not charged the true costs of serving them on an individual basis. Second, and perhaps more important, stand alone rates in this case produce results for some customers that are well beyond the zone of "just and reasonable." One needs only to look at the stand alone rates that would result from the settlement Agreement to see just how extreme the results are when significant investments are required in a very small system. Most of the community systems are simply too small to absorb the magnitude of investments mandated by environmental enactments. However, without these investments, it is clear that the small community systems would have been unable to provide safe and adequate water service to their customers.[92]

Single-tariff pricing evolved as a legitimate policy tool and is used by a clear majority of the states that regulate multi-system water utilities. Rate consolidation is a tool that can be used on a case-by-case basis, where regulators carefully weigh the evidence before them, and as a general policy tool to encourage acquisitions and regionalization. The precarious condition of very small water systems merits the consideration of alternative regulatory approaches, including consolidated rates.

Rate consolidation will continue to focus attention on some fundamental regulatory issues: Does it result in a measurable "subsidy"? Does the subsidy constitute a form of price discrimination? Are the resultant rates just and reasonable? Do the long-term benefits of implementing single-tariff pricing, including subsidization, outweigh the costs? Regulators must be satisfied with the answers to these questions before approving a rate consolidation strategy. Generally, however, the commissions are arriving at conclusions that support the use of single-tariff pricing.

The commissions have demonstrated their policymaking authority to approve consolidated rates, as well as their capacity to consider and weigh the complex ratemaking and policy tradeoffs involved. Only the commissions can specify the circumstances appropriate for single-tariff pricing in their jurisdictions. Water utilities should continue to advance innovative pricing strategies. The commissions should continue to exercise due diligence in approving water rate structures that serve the public interest.

[92] New Hampshire Public Utilities Commission, Order in Docket DR 97-058, Pennichuck Water Works, Inc. (1998).

Table 13
Pennsylvania Public Utility Commission
Policy Statement on Acquisition Incentives

Title 52, Part I, Chapter 69

Incentives for Acquisition and Merger of Small Nonviable Water Utilities--
Statement of Policy

§ 69.711. ACQUISITION INCENTIVES

(a) General

To accomplish the goal of increasing the number of mergers and acquisitions to foster regionalization, the Commission will consider the acquisition incentives at subsection (b). However, the following parameters must first be met in order for Commission consideration of a utility's proposed acquisition incentive. It should be demonstrated that:

(1) The acquisition services the general public interest;

(2) The acquiring utility meets the criteria of viability which will not be impaired by the acquisition; that it maintains the managerial, technical, financial capabilities to safely and adequately operate the acquired system, in compliance with the Public Utility Code, the Sate Drinking Water Act, and other requisite regulatory requirements on a short and long term basis;

(3) The acquired system has less than 3300 customer connections; the acquired system is not viable; it is in violation of statutory or regulatory standards concerning the safety, adequacy, efficiency or reasonableness of service and facilities; and that it has failed to comply within a reasonable period of time, with any order of the Department of Environmental Protection or the Public Utility Commission;

(4) The acquired system's ratepayers should be provided with improved service in the future, with the necessary plant improvements being completed within a reasonable period of time;

(5) The purchase price of the acquisition is fair and reasonable and the acquisition has been conducted through arm's length negotiations; and

(6) The concept of single tariff pricing should be applied to the rates of the acquired system, to the extent that is reasonable. Under certain circumstances of extreme differences in rates, and/or affordability concerns, consideration should be given to a phase-in of the rate difference over a reasonable period of time.

Table 13 (continued)

(b) Acquisition Incentives

In its efforts to foster acquisitions of suitable water and sewer systems by viable utilities when such acquisitions are in the public interest, the Commission seeks to assist these acquisitions by permitting the use of a number of regulatory incentives. Accordingly, the Commission will consider the following acquisition incentives:

(1) Rate of Return Premiums - Additional rate of return basis points may be awarded for certain acquisitions and for certain associated improvement costs, based on sufficient supporting data submitted by the utility within its rate case filing;

(2) Acquisition Adjustment - In cases where the acquisition costs are greater than the depreciated original cost, that reasonable excess may be included in the rate base of the acquiring utility and amortized as an expense over a 10-year period;

(3) Deferral of Acquisition Improvement Costs - In cases where the plan improvements are of too great a magnitude to be absorbed by ratepayers at one time, rate recovery of the improvement costs may be recovered in phases. There may be a one time treatment (in the initial rate case) of the improvement costs but a phasing-in of the acquisition, improvements and associated carrying-costs may be allowed over a finite period; or.

(4) Plant Improvement Surcharge - Collection of a different rate from each customer of the acquired system upon completion of the acquisition could be implemented to temporarily offset extraordinary improvement costs. In cases where the improvement benefits only those customers who are newly acquired, the added costs may be allocated on a greater than average level (but less than 100%) to the new customers for a reasonable period of time, as determined by the Commission.

(c) Procedural Implementation

The appropriate implementation procedure for the acquisition incentives listed would be to file the request during the next filed rate case. In the case of the first incentive, for example, the rate of return premium, appropriate supporting data should be filed within the rate of return section in order for Commission evaluation of its applicability. The rate of return premium as an acquisition incentive may be the most straightforward and its use is encouraged.

Other appropriate incentives may be considered by this Commission, provided they meet the parameters listed at subsection (a). Acquisition incentive requests will be considered on a case by case basis. In acquisition incentive filings, the burden of proof rests with the acquiring utility.

Source: Pennsylvania Public Utilities Commission, Incentives for Acquisition and Merger of Small Nonviable Water Utilities: Statement of Policy (February 28, 1996).

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APPENDIX A
GLOSSARY OF TERMS

Block rate. A billing rate applied to water usage that varies according to blocks of water usage (measured in gallons or cubic feet). See *uniform rate, decreasing-block rate,* and *increasing block rate.*

Common-management costs. Costs that are incurred on the basis of the joint operation of multiple systems. Costs under common management, given management economies of scale and scope, should be less for the utility than the sum of **stand-alone** costs for all of the operated systems.

Decreasing-block rate. A *variable rate* that decreases with additional blocks of water usage. See *uniform rate and increasing-block rate.*

Equity. A condition under which costs have been fairly allocated among customer groups consistent with cost-of-service and *efficiency* criteria. See *horizontal equity, vertical equity,* and *subsidy.*

Efficiency. A condition under which prices charged, and quantities produced and used, are optimal (that is, not too low or too high).

Fixed charge. The portion of a customer's water bill that does not vary with water usage. Fixed charges often are used to recover administrative and other recurring costs that are not determined by water usage. The fixed charge may include a minimal water allowance, above which a *variable rate* is applied.

Horizontal equity. A condition under which customers that impose similar costs on the utility system pay similar prices for comparable utility services. See *vertical equity.*

Intergenerational equity. A condition under which one generation of customers does not pay for costs imposed on the utility system by another group of customers. See *horizontal equity* and *vertical equity.*

Increasing-block rate. A *variable rate* that increases with additional blocks of water usage. See *uniform rate* and *decreasing-block rate.*

Investor-owned (or privately owned) utility. A utility owned and operated by a private firm on a for-profit basis. See *publicly owned utility.*

Just and reasonable. A concept used to evaluate utility rates related to the concept of **undue discrimination.**

Multisystem utilities. Public or private utilities that operate two or more water systems serving distinct service territories; systems may or may not be physically interconnected.

Municipal-unit doctrine. The treatment of a municipality as a distinct service territory and unit for cost allocation and ratemaking purposes (that is, "city-based" rates).

Phase-in (rates). Implementation of a significant change in rate levels or rate design in phases, rather than at once, in order to reduce rate shock to customers and revenue instability to the utility. Reflects the principle of gradualism.

Physically interconnected systems. Water systems joined by a system of pipes and pumps for transporting water (usually treated water) from one system to another.

Primacy agency. A state agency responsible for regulating community and noncommunity water systems to ensure compliance with federal drinking-water standards established under the Safe Drinking Water Act.

Privately owned (or investor-owned) utility. A utility owned and operated by a private firm on a for-profit basis. See *publicly owned utility.*

Public Utility Commission (PUC). A state agency responsible for regulating the rates and profits of public utility monopolies.

Publicly owned utility. A utility owned and operated by a governmental agency, such as a municipality, on a nonprofit basis. See *privately owned utility.*

Safe Drinking Water Act (SDWA). The federal statute that establishes drinking-water standards for community and noncommunity water systems. Substantial amendments to the SDWA were enacted in 1986 and 1996.

Service territory. The geographic area served by a public utility; a utility's service territory may or may not correspond to geopolitical boundaries.

Single-tariff pricing. Single-tariff pricing is the use of a unified rate structure for multiple water (or other) utility systems that are owned and operated by a single utility, but that may or may not be physically interconnected. Under single-tariff pricing, all customers of the utility pay the same rate for service, even though the individual systems providing service may vary in terms of operating characteristics and stand-alone costs.

Stand-alone pricing. Pricing based on the costs that a commonly owned or managed water system would incur if it replicated the same services and functions on a basis completely independent of the parent utility and other systems.

Subsidy. A transfer of welfare from one group of customers to another that is not based on differences in the cost of serving the different customer groups.

Tariff. The official rate schedule document specifying all of a utility's rates and charge; the tariff must be approved by appropriate state or local governing bodies.

Undue discrimination. Price differentiation that is not based on variations in the cost of service.

Uniform rate. A *variable* rate that does not change with the total amount of water usage.

Variable rate. The billing rate applied on a per gallon or per cubic foot basis to the amount of water used by customers

during the billing period. The variable rate multiplied by water usage determines the portion of a customer's water bill that varies with water usage.

Vertical equity. A condition under which customers that impose different costs on the utility system pay different prices for utility services based on the relevant cost differences. A related concept is **undue discrimination.**

Water system. An infrastructure system for withdrawing, transporting, treating, storing, and distributing water to a defined service territory.

Water utility. A public or private entity that owns and operates one or more *water systems* and typically charges customers for the cost of providing water service. In *multi-system* utilities, two or more water systems are owned and operated by the utility and they may or may not be *physically interconnected.*

Zonal Pricing. Differentiation in rates according to substantial differences in the cost of serving different areas. Zones generally are defined in spatial terms and represent geographic clusters of customers with similar cost characteristics.

APPENDIX B
SELECT COMMISSION ORDERS ON SINGLE-TARIFF PRICING

California

California Public Utilities Commission. Decision No. 89-06-007. Hillview Water Company, Inc. June 7, 1989.

Connecticut

Connecticut Department of Public Utility Control. Docket No. 86-12-08. Connecticut-American Water Company. June 2, 1987

_____. Docket No. 89-03-22. Connecticut-American Water Company. September 21, 1987.

Florida

Florida Public Service Commission. In re Rate Setting Procedure and Alternatives for Water and Sewer Utilities. 1989.

_____. Docket No. 920100-WS. Southern States Utilities, Inc. November 2, 1993.

_____. Docket No. 930880-WS. Southern States Utilities, Inc. September 13, 1994.

_____. Docket No. 930892-WU. Venture Associates Utilities Corp. December 30, 1994.

_____. Docket No. 931122-WU. Lakeside Golf, Inc. February 9, 1995

Hawaii

Hawaii Public Utilities Commission. Docket No. 6434. GASCO, Inc. April 3, 1992.

Illinois

Illinois Commerce Commission. Docket No. 92-0116. Illinois-American Water Company. February 9, 1993.

_____. Docket No. 94-0481. Citizens Utilities Company of Illinois. September 13, 1995.

_____. Docket No. 95-0076. Illinois-American Water Company. December 20, 1995.

Indiana

Indiana Utility Regulatory Commission. Cause No. 36483. Northern Indiana Fuel & Light Company, Inc. October 1, 1981.

_____. Cause No. 36427. Terre Haute Water Works Corp. November 13, 1981.

_____. Cause No. 38880. Indiana-American Water Company. September 26, 1990.

_____. Cause No. 39595. Indiana-American Water Company. February 2, 1994.

_____. Cause No. 40703. Indiana-American Water Company. December 11, 1997.

Iowa

Iowa Utilities Board. Docket No. RPU-94-21. ES Utilities, Inc. June 30, 1995.

Maine

Maine Public Utilities Commission. Docket Nos. 91-193 and 93-027. Michael McGovern v. Portland Water District. February 28, 1994.

Maryland

Maryland Public Service Commission. Case No. 8643. Chesapeake Utilities Corp. August 17, 1994.

Massachusetts

Massachusetts Department of Public Utilities. D.P.U. 95-118. Massachusetts-American Water Company. May 31, 1996.

Missouri

Missouri Public Service Commission. Case No. 90-236. Missouri Cities Water Company. October 12, 1990.

_____. Case Nos. WR-95-205 and SR-95-206. Missouri-American Water Company. November 21, 1995.

_____. Case Nos. WR-95-205 and SR-95-206. Missouri-American Water Company. November 21, 1995.

_____. Case Nos. WR-97-237 and SR-97-238. Missouri-American Water Company. November 6, 1997.

New Hampshire

New Hampshire Public Utilities Commission. Docket DR 97-058. Pennichuck Water Works, Inc, Request for Permanent Rates. March 25, 1998.

New Jersey

New Jersey Board of Public Utilities. Docket No. WR95040165. New Jersey-American Water Company. March 3, 1996.

New York

New York Public Service Commission. Case No. 93-W-0962. Order Instituting Proceeding and Soliciting Comments, Investigation of Incentives for Acquisition and Merger of Small Water Utilities. November 10, 1993.

Ohio

Ohio Public Utilities Commission. Case Nos. 88-716-GA-AIR et. all, 88-1011-GA-CMR. Columbia Gas of Ohio, Inc. October 17, 1989.

Pennsylvania

Pennsylvania Public Utility Commission. Order in Docket R-850096, Western Pennsylvania Water Company (January 29, 1986).

_____. Order in Docket No. M-00950686. Policy Statement Re: Incentives For The Acquisition And Merger Of Small, Nonviable Water And Waste Water Systems. February 23, 1996.

Rhode Island

Rhode Island Public Utilities Commission. Docket No. 2216. Narragansett Bay Water Quality Management District. March 24, 1995.

Texas

Texas Public Utility Commission. Docket No. 4240. Texas-New Mexico Power Company. June 2, 1982.

West Virginia

West Virginia Public Service Commission. Case No. 81-126-W-42A. West Virginia Water Company. May 26, 1982.

_____. Case No. 89-498-W-42T. West Virginia-American Water Company. May 4, 1990.

_____. Case No. 89-498-W-42T. West Virginia-American Water Company. May 24, 1990.

_____. Case No. 93-0279-W-42T. West Virginia-American Water Company. January 23, 1994.

Source: Adapted and updated from Daniel W. McGill, "Memorandum on Single-Tariff Pricing" (correspondence dated December 31, 1996).

APPENDIX C
DETAILED EXAMPLE OF SINGLE-TARIFF PRICING

Table C1
Cost-of-Capital Determination

Source of Capital	Issuance Cost ($)	End-of-year Capitalization ($)	Capitalization (percent)	Cost Rate ($)	Weighted Cost ($)
Short-term bank debt		4,800,000	7.47	14.00	1,046
Long-term debt bonds					
First-mortgage bonds					
5 3/8% series due 3/1/82	2,040	2,500,000	3.90	5.427	0.211
9 3/4% series due 5/1/95	40,544	3,000,000	4.67	9.884	0.462
10% series due 10/1/96	229,017	16,800,000	26.17	10.116	2.647
9 3/8% series due 8/1/96	83,423	7,840,000	12.21	9.474	1.157
Total long-term debt		30,140,000	46.95	9.54	4.477
Preferred stock					
10 percent	31,781	2,940,000	4.58	10.092	0.462
9 1/2 percent	19,067	1,368,000	2.13	9.602	0.204
7 1/2 percent	21,926	1,920,000	2.99	7.692	0.230
Total preferred stock		6,228,000	9.70	9.24	8.896
Common equity					
Common stock		986,073			
Capital surplus		7,172,538			
Earned surplus		14,875,670			
Total common equity		23,034,281	35.88	15.00	5.381
Total capitalization		64,202,281	100.00		11.800

Source: Adapted from Edward M. Limbach, "Single Tariff Pricing," *Journal American Water Works Association* 75 no. 9 (September 1984).

Table C2
Allocation of Expenses by District and Under Single-Tariff Pricing

Expense Per 1 Million Gallons of Pumped Water	District A	District B	District C	District D	Single-Tariff Pricing
Fuel and power	49	91	115	102	57
Chemicals	15	31	76	17	20
Total operation cost	374	2,136	2,443	789	513
Total maintenance cost	103	499	277	94	116

Source: Adapted from Edward M. Limbach, "Single Tariff Pricing," *Journal American Water Works Association* 75 no. 9 (September 1984).

Table C3
District Revenue Requirements and Effect on Average Residential Water Bill

Cost and Service Characteristics	District A	District B	District C	District D
Ratebase ($)	52,231,951	211,630	351,510	2,320,677
Rate of return (percent) ◆	11.80	11.80	11.80	11.80
Utility operating income ($)	6,163,370	24,972	41,466	273,840
Operation & maintenance expense ($)	5,835,260	173,506	139,624	806,709
Depreciation & amortization ($)	806,306	5,931	9,750	32,509
Taxes other than federal income tax ($)	1,789,540	16,527	18,728	131,035
Provision for federal income tax ($)	1,057,772	2,919	2,944	45,127
Total revenue requirement ($)	15,652,248	223,855	212,512	1,289,220
Percentage of revenue assigned to residential customers	53.03	70.86	66.4	64.67
Number of residential customers	51,651	534	558	5,180
Average residential water bill ($)◆◆	12.01	27.70	24.21	13.30
Impact of $50,000 investment on average residential bill	0.12 (1%)	15.16 (55%)	$13.59 (56%)	$1.43 (11%)

Source: Adapted from Edward M. Limbach, "Single Tariff Pricing," *Journal American Water Works Association* 75 no. 9 (September 1984).
◆ From Table C1. ◆◆ Based on 4,500 gallons per month.

Table C4
Comparison of Tariffs for Selected Districts Before and After Implementation of Single-Tariff Pricing

Usage Charge	District A ($)	District B ($)	Single-Tariff Pricing ($)
Minimum charge			
17-mm (5/8-inch) meter or smaller	6.62	13.11	7.35
20-mm (3/4-inch) meter	9.78	19.67	11.06
25-mm (1-inch) meter	16.30	32.78	18.40
40-mm (1 1/2-inch) meter	32.59	65.56	36.80
50-mm (2-inch) meter	52.15	104.91	58.90
80-mm (3-inch) meter	97.78	196.70	110.40
100-mm (4-inch) meter	162.96	327.85	184.00
150-mm (6-inch) meter	325.92	655.69	368.00
200-mm (8-inch) meter	521.47	1,049.11	568.80
Variable charge (per 1,000 gallons)			
First 2000 gallons/month	--	--	--
Next 28,000 gallons/month	2.597	4.526	2.74
Next 970,000 gallons/month	1.562	3.147	1.56
Next 9 million gallons/month	1.107	3.147	1.14
All more than 10 million gallons/month	0.858	3.147	0.902

Source: Adapted from Edward M. Limbach, "Single Tariff Pricing," *Journal American Water Works Association* 75 no. 9 (September 1984).

APPENDIX D

Date: 1996

(_____) _____
Dr. Janice A. Beecher, Director of Regulatory Studies
University

Re:

Happy New Year! Can you help me by taking a moment to fill out this quick survey and faxing it will make the results available to everyone.

is used to implement a single rate structure for multiple water (or other) utility the utility pay the same rate for service, even though the individual systems providing service may Water utilities with multiple systems are not necessarily found in every state.

1. Do any of the water **utilities** regulated by your commission have multiple water **systems** (☑)? **Yes** ☐ **No** ☐

   If No, the remaining questions are not applicable to your state. Please return the first page of the questionnaire so that your state will be represented in the survey.

2. If you answered **Yes** to Question **1**, please name the multi-system water utilities, the number of systems they operate, and the approximate number of connections for the smallest and largest system operated by the utility. Use an additional sheet if necessary.

3.

Utility Name	*Total Number of Systems*	*Approximate Number of Connections for the: Smallest System*	*Largest System*

3. Has your commission **approved** single-tariff pricing for any of the utilities named in Question 1 (☑)? **Yes** ☐ *Go to Question 4* **No** ☐ *Go to Question 5*

4. If your answer to Question 3 was **Yes**, please name the utilities and when the tariff was first approved. Use an additional sheet if necessary.

Utility Name	*When was the tariff first approved?*
_____	_____
_____	_____
_____	_____

5. If your answer to Question 3 was **No**, please check all of the following that apply (☑):

- ☐ Single-tariff pricing has not been an issue.
- ☐ Single-tariff pricing has been considered but not specifically approved.
- ☐ A proposal for single-tariff pricing has been rejected.
- ☐ Other: _____

6. Has single-tariff pricing been explicitly **prohibited** in your state by statute (☑)? **Yes** ☐ **No** ☐

When was the statute passed? _____

Please describe the nature of the prohibition: _____
_____
_____

7. Has your commission put any monitoring and/or evaluation systems in place for single-tariff pricing in cases where it has been implemented (☑)? **Yes** ☐ **No** ☐

If **Yes**, please describe: _____
_____

8. If your commission **approved** single-tariff pricing, what was the **primary** reason for the approval? _____

9. If your commission **rejected** single-tariff pricing, what was the **primary** reason for the rejection? _____

10. Please characterize your commission's policy position on single-tariff pricing (☑)?
✓
- ☐ Generally accepted
- ☐ Generally not accepted
- ☐ Decided on a case-by-case basis
- ☐ Never considered

11. If single-tariff pricing has been an issue in your state, whether or not it has been implemented, please review the following arguments in favor and against single-tariff pricing and check all that have influenced your commission's deliberations or policies on the issue. Check (☑) all that apply:

Arguments in Favor of Single-Tariff Pricing

✓

- ☐ Provides incentives for utility regionalization and consolidation
- ☐ Mitigates rate shock to utility customers
- ☐ Promotes universal service for utility customers
- ☐ Promotes ratepayer equity on a regional basis
- ☐ Improves service affordability for customers
- ☐ Addresses small-system viability issues
- ☐ Facilitates compliance with drinking water standards
- ☐ Provides ratemaking treatment that is similar to that for other utilities
- ☐ Lowers administrative costs to the utilities
- ☐ Lowers administrative costs to the commission
- ☐ Promotes regional economic development
- ☐ Encourages further private involvement in the water sector
- ☐ Encourages investment in the water-supply infrastructure
- ☐ Physical interconnection is not considered a prerequisite
- ☐ Overall benefits outweigh overall costs
- ☐ Other: _____

Arguments Against Single-Tariff Pricing

✓

- ☐ Conflicts with cost-of-service principles
- ☐ Undermines economic efficiency
- ☐ Provides subsidies to high-cost customers
- ☐ Distorts price signals to customers
- ☐ Discourages efficient water-use and conservation
- ☐ Encourages growth and development in high-cost areas
- ☐ Encourages overinvestment in infrastructure
- ☐ Fails to account for variations in customer contributions
- ☐ Provides unnecessary incentives to utilities
- ☐ Considered inappropriate without physical interconnection
- ☐ Not acceptable to all affected customers
- ☐ Not acceptable to other agencies or governments
- ☐ Justification has not been adequate in a specific case (or cases)
- ☐ Insufficient statutory or regulatory basis or precedents
- ☐ Overall costs outweigh overall benefits
- ☐ Other: _____

Please provide any additional comments on another sheet. Thank you again for your assistance. I look forward to working with you in 1996.

APPENDIX E
DETAILED FINDINGS FROM COMMISSION SURVEY ON SINGLE-TARIFF PRICING

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)
Alabama	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Alaska	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Arizona	Yes	9	Yes	2	NA	No	No	Viability of systems	NA	Case-by-case
Arkansas	No	0	NA	NA	NA	NA	NA	NA	NA	NA
California	Yes	3	No (a)	0 (a)	Considered but not approved	No	No	NA	NA	Case-by-case
Colorado	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Connecticut	Yes	12	Yes	10	NA	No	No	Mitigate rate shock	NA	Generally accepted
Delaware (b)	No	0	No	NA	NA	NA	NA	NA	NA	NA
Florida	Yes	60 to 70	Yes	20	NA	No (c)	No	Affordability; revenue stability; rate normalization for construction projects; simplified bookkeeping; reduced rate case expense.	NA	Case-by-case
Georgia	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Hawaii	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Idaho	Yes	1	Yes	1	NA	No	No	Not an issue when proposed	NA	Case-by-case
Illinois	Yes	4	Yes	2	NA	No	No	Reasonably consistent costs and source of supply	Difference in source-of-supply costs	Case-by-case

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)
Indiana	Yes	2	No	0	Rejected (later approved)	No	NA	NA	Cost-of-service; cost-based rates	Case-by-case
Iowa	Yes	1	No	0	Not an issue	No	NA	NA	NA	Never considered
Kansas	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Kentucky	Yes	1	No	0	Not an issue	No (d)	NA	NA	NA (d)	Never considered
Louisiana	Yes	10	No	0	Not an issue	No	NA	NA	NA	Never considered
Maine	Yes	1	No	0	Not an issue	No	NA	NA	NA	Never considered
Maryland	Yes	2	No	0	Not an issue	No	NA	NA	NA	Case-by-case
Massachusetts	Yes	1	No (a)	0 (a)	Considered but not approved*	No	No	Contiguity of communities; commonality of personnel; administrative convenience.	Need for further post-merger experience.	Case-by-case
Michigan	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Minnesota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Mississippi	Yes	1	No	NA	Not an issue	No	NA	NA	NA	Case-by-case
Missouri	Yes	2	Yes	2	NA	No	No	Cost savings	NA	Generally accepted
Montana (b)	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Nebraska	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Nevada	No	0	NA	NA	NA	NA	NA	NA	NA	NA
New Hampshire	Yes	4	No (a)	0 (a)	Considered but not approved*	No	NA	NA	NA	Case-by-case

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)
New Jersey	Yes	3	No	0	Considered but not approved*	No	NA	NA	NA	Case-by-case
New Mexico	No	0	NA	NA	NA	NA	NA	NA	NA	NA
New York	Yes	5	Yes	1	NA	No	No	NA	Cost-of-service differentials	Case-by-case
North Carolina	Yes	50	Yes	46	NA	No	No	Acceptable cost-of-service differentials	NA	Generally accepted
North Dakota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	More economical for utility and customers; less tracking required.	NJ	NJ
Ohio	Yes	3	Yes	2	NA	NA	NA	Company request, cost savings, customer benefits.	NA	Case-by-case
Oklahoma	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Oregon	Yes	1	Yes	1	NA	No	No	Public interest	NA	Generally accepted
Pennsylvania (e)	Yes	11	Yes	7	NA	No	No	Economies of scale; mitigate rate shock associated with improvements; lessen bookkeeping and reporting.	NA	Generally accepted; case-by-case
Rhode Island	No	0	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)
South Carolina	Yes	4	Yes	4	NA	No	No	Uniform cost allocation; lower billing costs; base charge covers most fixed costs.	NA	Generally accepted
South Dakota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Tennessee	No	0	NA	NA	NA	NA	NA	NA	NA	NA
Texas	Yes	200 to 300	Yes	Most	NA	No	No	Regionalization, lower administrative cost	NA	Generally accepted and preferred
Utah	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vermont	Yes	1	Yes	1	NA	No	NA	Viability of systems; public interest	Staff rejected based on cross subsidies	Case-by-case
Virginia	Yes	4	Yes	4	NA	No	No	Spreads costs; separating small-system costs not always effective.	NA	Case-by-case
Washington	Yes	30	Yes	25	NA	No	No	Economies of scale for small systems	NA	Generally accepted

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)
West Virginia (f)	Yes	26	Yes	17	NA	No	Yes (g)	Promotes regionalization; ratepayer equity; ratemaking treatment similarity (f).	Cost-of-service principles; customer contribution inequities (f).	Case-by-case
Wisconsin (h)	Yes	1	No	0	Not an issue	No	NA	NA	NA	Never considered
Wyoming (b)	No	NA	NA	NA	NA	NA	NA	NA	NA	NA
D.C.	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)

(a) Partial rate consolidation has been approved; single-tariff pricing may be phased-in for some utilities (for regulatory simplification).
(b) Response by phone or derived from *1995 Inventory of Commission-Regulated Water Systems;* no multi-system water utilities.
(c) Proposed legislation would require physical interconnection of systems for single-tariff pricing.
(d) Farmers Home Administration debt requirements prohibit, but the issue did not come before the commission.
(e) May be more multi-system water utilities in the state.
(f) The commission regulates public service districts. These data reflect primarily the views of staff involved in regulating the districts.
(g) Reevaluation of rate cases where single-tariff pricing has been implemented (for public service districts).
(h) Response applies to regulated investor-owned utilities only. The Commission also regulates municipal water utilities and state law requires single-tariff pricing throughout municipalities.
* Pending or later cases were decided in favor of single-tariff pricing.

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E1
Commission Policies on Single-Tariff Pricing for Water Utilities

State	Multi-System Utilities in the State (Q1)	Number of Multi-System Utilities (Q2)	Commission Approval of Single-Tariff Pricing (Q3)	Number of Utilities with Single Tariff Pricing (Q4)	Reasons for No Single-Tariff Pricing (Q5)	Has Single-Tariff Pricing Been Prohibited by Statute (Q6)	Monitor or Evaluate Single-Tariff Pricing (Q7)	Reason for Approval (Q8)	Reason for Rejection (Q9)	Commission Policy (Q10)
Summary Data										
Yes	29	--	17	--	--	0	1	--	--	--
No	16	--	13	--	--	29	17	--	--	--
NA	0	--	15	--	33	16	27	27	38	16
NJ	6	--	6	--	6	6	6	6	6	6
Not an issue	--	--	--	--	7	--	--	--	--	--
Rejected	--	--	--	--	1	--	--	--	--	--
Considered but not approved	--	--	--	--	4	--	--	--	--	--
Generally accepted	--	--	--	--	--	--	--	--	--	8
Generally not accepted	--	--	--	--	--	--	--	--	--	0
Case-by-case	--	--	--	--	--	--	--	--	--	16
Never considered	--	--	--	--	--	--	--	--	--	5
Total	51	193	51	145	51	51	51			51

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
Alabama	NA	NA	NA	NA	NA	NA	
Alaska	NA	NA	NA	NA	NA	NA	
Arizona	Wilhoit Water Company	4	47	140	Yes	1993	
	Water Utility of Greater Tonopah, Inc.	7	4	67	Yes	1994	
	Arizona Water Company	20	176	8,120	No	NA	
	Big Park Water Company	3	10	1,400	No	NA	
	Citizens Utilities Company	5	416	20,000	No	NA	
	Congress Water Company	2	48	434	No	NA	
	Cordes Lakes Water Company	3	600	2,977	No	NA	
	Marana Water Service, Inc.	2	88	600	No	NA	
	United Utilities	12	22	1,229	No	NA	
Arkansas	NA	NA	NA	NA	NA	NA	
California	Cal Water Service Company	19	485	3,400	Partial	1990s	Phasing-in tariff, subject to cost analysis (a).
	Southern California Water Company	21	1,000	96,000	Partial	1990s	Phasing-in tariff, subject to cost analysis (a).
	California-American Water Company	5	7,000	40,000	No	NA	
Colorado	NA	NA	NA	NA	NA	NA	
Connecticut	Bridgeport Hydraulic Company	7	66	97,000	Yes	1986	
	Connecticut Water Company	16	42	27,000	Yes	1988	
	Connecticut-American Water Company	5	43	16,000	Partial	1985	Phasing-in rate.
	Crystal Water Company	3	480	2,204	Yes	1995	
	Eastern Connecticut Regional Water Co.	25	<5	249	Partial	1993	Six tariffs; phasing-in rate.
	Gallup Water Service Company	4	36	574	No	NA	

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Jewett City Water Company	4	20	1,331	Yes	1986	
	Olmstead Water Company	4	31	121	Yes	1995	
	Rural Water Company	20	2	244	Yes	1973	
	Topstone Hydraulic Company	3	41	237	Yes	1975	
	Tyler Lake Water Company	4	27	90	No	NA	
	United Water Connecticut Inc.	4	136	2,919	Yes	1993	
Delaware	NA	NA	NA	NA	NA	NA	Since the survey, a multi-system utility was created (acquisition); consolidated rates were approved.
Florida (b)	Arredondo Utility Company	2	NR	NR	Yes	NR (b)	
	Clay Utility Company	2	NR	NR	Yes	NR (b)	
	Consolidated Water Works, Inc.	2	NR	NR	Yes	NR (b)	
	Florida Cities Water Company (Lee County)	2	NR	NR	Yes	NR (b)	Single-tariff for water only.
	Gulf Utility Company	2	NR	NR	Yes	NR (b)	Interconnected water; noninterconnected wastewater.
	Heartland Utilities, Inc	2	NR	NR	Yes	NR (b)	
	Holiday Utility Company, Inc.	2	NR	NR	Yes	NR (b)	
	Jacksonville Suburban Utilities Corp., Inc.	21	NR	NR	Partial	NR (b)	Three tariffs.
	Lake Utility Services, Inc.	11	NR	NR	Partial	NR (b)	Two tariffs.
	Lenvil H. Dicks	4	NR	NR	Yes	NR (b)	
	Mad Hatter Utility, Inc.	3	NR	NR	Yes	NR (b)	Noninterconnected water; interconnected wastewater.

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Marion Utilities, Inc.	23	NR	NR	Partial	NR (b)	Two tariffs.
	Neighborhood Utilities, Inc.	5	NR	NR	Yes	NR (b)	
	Ocala Oaks Utilities, Inc.	9	NR	NR	Yes	NR (b)	
	Pine Island Utility Corporation	2	NR	NR	Yes	NR (b)	
	Poinciana Utilities, Inc.	4	NR	NR	Yes	NR (b)	
	Rainbow Springs Utilities, Inc.	2	NR	NR	Yes	NR (b)	
	Seven Rivers Utilities, Inc.	3	NR	NR	Yes	NR (b)	
	Sunshine Utilities of Florida	20	NR	NR	Partial	NR (b)	Excludes 2 systems.
	Utilities, Inc.	16	NR	NR	Partial	NR (b)	Three tariffs.
Georgia	NJ	NJ	NJ	NJ	NJ	NJ	
Hawaii	NA	NA	NA	NA	NA	NA	
Idaho	Hayden Pines Water Company	10	12	646	Yes	1985	Not an issue when proposed.
Illinois	Citizens Utilities Company of Illinois	22	114	8,400	Partial	1965	Some exceptions based on source of supply differences.
	Illinois-American Water Company	5	1,700	65,200	Partial	1993	Phasing-in one system.
	Northern Illinois Water Corporation	4	4,000	40,200	No	NA	
	Consumers Illinois Water Company	8	200	19,200	No	NA	
Indiana	Indiana-American Water Company	16	NR	NR	No	NA	
	Hoosier Water	4	NR	NR	No	NA	
Iowa	Iowa-American Water Company	2	10,400	43,700	No	NA	
Kansas	NA	NA	NA	NA	NA	NA	
Kentucky	Southeastern W.D.	3	837	1,278	No	NA	
Louisiana	A.T.S.	NR	NR	NR	No	NA	
	Acadian Water & Sewer	NR	NR	NR	No	NA	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Baton Rouge Water Company	NR	NR	NR	No	NA	
	Capital Utilities	NR	NR	NR	No	NA	
	Coast Water System	NR	NR	NR	No	NA	
	Hunstock Hills	NR	NR	NR	No	NA	
	Ascension Water Company	NR	NR	NR	No	NA	
	Louisiana Water Company	NR	NR	NR	No	NA	
	Parish Water Company	NR	NR	NR	No	NA	
	Utilities Data, Inc.	NR	NR	NR	No	NA	
Maine	Consumers Maine Water Company	7	408	7,192	No	NA	
Maryland	Utilities, Inc.	5	75	1,010	No	NA	
	Facilities Services, Inc.	7	31	130	No	NA	
Massachusetts	Massachusetts-American	3	2,400	11,000	Partial	1990	Two tariffs under a settlement agreement; a case is pending (a).
Michigan	NJ	NJ	NJ	NJ	NJ	NJ	
Minnesota	NJ	NJ	NJ	NJ	NJ	NJ	
Mississippi	Johnson Utility Company	32	12 to 15	600 to 750	No	NA	
Missouri	Missouri-American Water	7	500	2,800	Yes	1995	
	KMB Utilities	6	200	600	Yes	1995	
Montana	NA	NA	NA	NA	NA	NA	
Nebraska	NA	NA	NA	NA	NA	NA	
Nevada	NA	NA	NA	NA	NA	NA	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
New Hampshire	Consumers New Hampshire Water	24	40	5,000	Partial	NR	Three tariffs; may be moving toward single tariff (a).
	Pennichuck Water Works	12	35	19,000	No	NA	
	Lakes Regional Water Company	11	30	200	No	NA	
	Carleton Water Company	4	30	175	No	NA	
New Jersey	New Jersey-American	2	272	329,000	No	NA	A case is pending.*
	Elizabethtown Water Company	2	10,928	181,100	No	NA	
	Consumers New Jersey	7	422	28,652	No	NA	
New Mexico	NA	NA	NA	NA	NA	NA	
New York	Jamaica Water Supply	2	30,000	90,000	No	NA	Operated as one system until disconnected and extreme cost differentials became apparent
	South County Water	4	2	270	No	NA	Smallest serves two industrial customers.
	Rand Water	2	148	158	No	NA	
	Northwood Water	2	49	220	No	NA	
	Forest Park Water	6	30	60	Yes	1987	Commission imposed single-tariff pricing.
North Carolina	Alpha Utilities	11	18	121	Yes	1986	
	Bess Brothers	11	16	78	Yes	1971	
	Bogue Banks Water Company	3	80	3,830	Yes	1991	
	Bradshaw Water Company	5	10	41	Yes	1974	
	Brookwood Water Corporation	15	32	5,345	Yes	1974	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Carolina Water Services of NC	72	13	2,790	Yes	1978	
	Clear Meadow Water	2	24	50	Yes	1981	
	Coastal Plains Utility Company	3	36	542	Yes	1967	
	Community Water Works	2	26	51	Yes	1975	
	Corriher Water Service	22	13	193	Yes	1968	
	Crabtree Water Systems	3	10	26	No	NA	
	Cross State Development Company	3	9	140	Yes	1974	
	CWS Systems	16	12	1,211	No	NA	
	D&W Water Systems	2	17	96	Yes	1987	
	Environmental Maintenance	3	20	132	No	NA	
	Fairways Utilities	3	9	296	Yes	1990	
	Fisher Utilities	18	13	184	Yes	1973	
	Fox Run Water Company	6	21	60	Yes	1989	
	Goss Utility Company	7	19	131	Yes	1976	
	Grandfather Golf and Country	2	45	156	Yes	1982	
	Heater Utilities	150	10	2,475	Yes	1972	
	Wayne M. Honeycutt	3	15	40	Yes	1978	
	Huffman Water Systems	10	11	83	Yes	1964	
	Hydraulics, Ltd.	85	4	191	Yes	1966	
	HydroLogic	4	15	64	No	NA	
	Kings Grant Water Company	7	96	850	Yes	1968	
	Knob Creek Utility	3	24	151	Yes	1984	
	Language Water Works Corp.	22	62	678	Yes	1969	
	Ira D. Lee & Assoc.	2	41	145	Yes	1986	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Lewis Water Company	14	6	80	Yes	1980	
	Lincoln Water Works	2	21	122	Yes	1972	
	William K. Mauney	2	19	24	Yes	1976	
	Mercer Environmental	10	47	479	Yes	1965	
	Mid South Water Systems	201	7	429	Yes	1981	
	Giles E. Mullis	2	20	20	Yes	1983	
	Norwood Beach Water System	4	10	36	Yes	1995	
	Piedmont Construction & Water	47	7	147	Yes	1970	
	Prior Construction Company	2	11	184	Yes	1988	
	Quality Water Supplies	14	37	257	Yes	1967	
	Rayco Utilities	10	12	104	Yes	1987	
	Scientific Water & Sewage	5	106	537	Yes	1964	
	Scotland Water	4	39	91	Yes	1983	
	Scotsdale Water & Sewage	15	7	205	Yes	1990	
	Setzer Brothers Well Boring	3	30	72	Yes	1972	
	Spring Water Company	2	17	139	Yes	1977	
	Surry Water Company	30	8	206	Yes	1972	
	Turner Farms	4	20	127	Yes	1982	
	Water Resources	2	9	81	Yes	1993	
	West Wilson Water Company	6	15	74	Yes	1988	
	Woods Water Works	4	5	18	Yes	1981	
North Dakota	NJ	NJ	NJ	NJ	NJ	NJ	
Ohio	Ohio-American Water	8 or 9	300	15,000	Yes	1975 to 1983	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Citizens Utilities	6	278	3,023	Yes	1975 to 1983	
	Consumers Ohio Water	4	7,516	25,254	No	NA	
Oklahoma	NA	NA	NA	NA	NA	NA	
Oregon	Avion Water Company, Inc.	4	52	5,750	Yes	Early 1970s	
Pennsylvania	Pennsyvania-American Water Company	27	NR	NR	Yes	1970s & 1980s	Interconnected systems (1970s); noncontiguous systems (1980s).
	United Water Pennsylvania, Inc.	22	NR	NR	Partial	1992	Excludes one system.
	Consumers Pennsylvania Water Company	10	NR	NR	Partial	NR	Three rate zones.
	Citizens Utilities Water Company of PA	20	NR	NR	Partial	NR	Five rate zones.
	National Utilities, Inc.	21	NR	NR	Partial	NR	Three rates and four systems with their own tariffs.
	Philadelphia Suburban Water Company	15	NR	NR	Partial	NR	Most acquisitions adopt the single tariff; excludes two systems.
	Newtown Artesian Water Company	2	NR	NR	Yes	1994	Merger of two companies.
	Redstone Water Compnay, Inc.	3	NR	NR	No	NA	Three rate zones and four systems with separate tariffs.
	Frank Sargent	4 to 5	NR	NR	No	NA	May be moving toward single tariff.
	Blaine Rhodes	5	NR	NR	No	NA	May be moving toward single tariff.

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Carl Kreisge	2 to 3	NR	NR	No	NA	May be moving toward single tariff.
Rhode Island	NA	NA	NA	NA	NA	NA	
South Carolina	Carolina Water Service Inc.	53	18	1,500	Yes	1987	
	Heater Utilities, Inc.	38	5	250	Yes	1990	
	Blue Ribbon H2O Corporation	34	5	300	Yes	1995	
	Upstate Heater Utilities Inc.	21	20	50	Yes	1994	
South Dakota	NJ	NJ	NJ	NJ	NJ	NJ	
Tennessee	NA	NA	NA	NA	NA	NA	
Texas	*Data not easily available*	*Not reported*					*Single-tariff pricing is preferred; a special procedure is used to implement the tariff in conjunction with acquisitions.*
Utah	NA	NA	NA	NA	NA	NA	
Vermont	Sunshine Water Company	4	12	40	Yes	1985	
Virginia	Alpha Water Corporation	28	10	200	Yes	1984	
	Heritage Homes of Virginia	8	11	29	Yes	1994	
	New River Water Company	14	7	126	Yes	1993	
	Pocahontas Water Works	2	60	68	Yes	1958	
Washington (c)	Alderton-McMillin Water Supply, Inc.	8	NR	NR	Yes	NR	
	Aquarius Utilities, Inc.	4	NR	NR	Yes	NR	
	Arcadia Utilities	11	NR	NR	No	NA	
	Bethel Water Company	3	NR	NR	Yes	NR	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Evergreen Land & Water, Inc.	6	NR	NR	Yes	NR	System under receivership.
	Gamble Bay Water, Inc.	10	NR	NR	Yes	NR	
	H & R WaterWorks, Inc.	8	NR	NR	Yes	NR	
	H2O Company, The	2	NR	NR	No	NA	
	Harbor Water Company, Inc.	79	NR	NR	Yes	NR	
	Iliad Water Services, Inc.	12	NR	NR	No	NA	
	Lara Lee, Inc.	6	NR	NR	Yes	NR	
	Mainland View Manor Maintenance Co.	5	NR	NR	Yes	NR	
	Marvin Road Water Company	4	NR	NR	Yes	NR	
	Mirrormont Srevices, Inc.	2	NR	NR	Yes	NR	
	Monterra, Inc. (Washington Water Systems)	2	NR	NR	Yes	NR	
	Northwest Water Systems, Inc.	13	NR	NR	Yes	NR	
	Pattison Water Comapny	4	NR	NR	Yes	NR	
	Point Fosdick Water Company, Inc.	4	NR	NR	Yes	NR	
	Rainier View Water Company, Inc.	4	NR	NR	Partial	NR	Excludes 1-2 systems.
	Sanderson & Associates, Inc.	13	NR	NR	Yes	NR	
	Satellite Water Systems	25	NR	NR	No	NA	
	S-K Pump & Drilling	39	NR	NR	Yes	NR	
	Soren Pedersen Water Company	2	NR	NR	No	NA	
	Sound Water Company, Inc.	4	NR	NR	Yes	NR	
	South Bainbridge Water System, Inc.	2	NR	NR	Yes	NR	
	South Sound Utility Company, Inc.	35	NR	NR	Yes	NR	
	Stroh Water Company	5	NR	NR	Partial	NR	Excludes 1-2 systems.
	Sunshine Acres Water System	4	NR	NR	Yes	NR	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	Thomas Water Service, Inc.	2	NR	NR	Yes	NR	
	Washington Water Supply, Inc.	9	NR	NR	Yes	NR	
West Virginia (d)	West Virginia-American	13	571	68,636	Yes	1982	Formerly 12 to 14 districts.
	Arbuckle	2	NR	NR	Yes	Prior to 8/85	
	Central Hampshire	2	NR	NR	No	NA	
	Friendly	2	NR	NR	Yes	Prior to 4/88	
	Gilmer County	2	NR	NR	Yes	Prior to	
	Grant County	2	NR	NR	Yes	Prior to 9/83	
	Green Valley-Glenwood	2	NR	NR	Yes	Prior to 6/80	
	Hammond	2	NR	NR	Yes	1982	
	Hardy County	2	NR	NR	No	NA	
	Jefferson County	3	NR	NR	No	NA	
	Kopperston	2	NR	NR	Yes	1981	
	Logan County	5	NR	NR	Yes	1995	
	Mannington	2	NR	NR	Yes	Prior to 3/82	
	Mason County	3	NR	NR	No	NA	
	McDowell County	6	NR	NR	No	NA	
	Oakland	2	NR	NR	Yes	Prior to 5/84	
	Ohio County	3	NR	NR	Yes	Prior to 1/81	
	Pendleton County	4	NR	NR	No	NA	
	Preston County #1	2	NR	NR	Yes	Prior to 2/81	
	Preston County #2	2	NR	NR	Yes	Prior to	
	Raleigh County	3	NR	NR	No	NA	
	Red Sulphur	2	NR	NR	Yes	Prior to 8/83	

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
	South Putnam	2	NR	NR	No	NA	
	Van	2	NR	NR	No	NA	
	Washington Pike	2	NR	NR	Yes	Prior to 7/80	
	Wyoming-Glover	2	NR	NR	Yes	Prior to 2/85	
Wisconsin	Wisconsin Power & Light	2	2,661	13,752	No	NA	
	Several towns with two or three systems		*Not reported*				*Single-tariff pricing is required for municipal utilities*
Wyoming	NA	NA	NA	NA	NA	NA	
D.C.	NJ	NJ	NJ	NJ	NJ	NJ	

(a) *Single-tariff pricing has not been explictly approved, but some rate consolidation has occurred (three states; four systems).*
(b) Only utilities with single-tariff pricing for all or some systems are reported. These rates were approved over time, dating back to at least the early 1980s. Data were not reported for all multi-system utilities in the state.
(c) Flat rates and metered rates may exist within the same tariff; mobile home parks and multi-dwelling units may have a separate rate within the same tariff.
(d) Only West-Virginia is investor-owned; the rest are public service districts. Only multi-system utilities are reported;interconnected systems and single-systems with multiple tariffs are not included.
* Pending cases were decided in favor of single-tariff pricing.

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TABLE E2
Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
Summary Data for All Utilities							
Yes		--	--	--	129	--	
Partial		--	--	--	20	--	
No		--	--	--	64	--	
Total	--		--	--	213	--	
Minimum		2	2	18	--	--	
Maximum		201	30,000	329,000	--	--	
Average		11	751	11,615	--	--	
Median		4	30	257	--	--	
Utilities reported		203	115	115	--	--	

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Multi-System Water Utilities and Single-Tariff Pricing

State	Name of Multi-System Water Utility (Q2)	Approximate Number of Systems (Q2)	Smallest System (N Connections) (Q2)	Largest System (N Connections) (Q2)	Single-Tariff Pricing Approved (Q4)	Approximate Date of Approval (Q4)	Notes
Summary Data for Single-Tariff Utilities							
Yes		--	--	--	129	--	
Partial	--		--	--	20	--	
No		--	--	--	0	--	
Total		--	--	--	149	--	
Minimum		2	2	18	--	1958	
Maximum		201	2,400	97,000	--	1995	
Average		13	122	5,651	--	1982	
Median		5	20	193	--	1984	
Utilities reported		149	81	81	--	80	
Summary Data for Non-Single-Tariff Utilities							
Yes		--	--	--	0	--	
Partial		--	--	--	0	--	
No		--	--	--	64	--	
Total		--	--	--	0	--	
Minimum		2	2	26	--	--	
Maximum		32	30,000	329,000	--	--	
Average		6	2,251	25,824	--	--	
Median		4	82	1,254	--	--	
Utilities reported		54	34	34	--	--	

Note:
For reponses reported as a range of values, averages were used (for example, "8 to 9" was averaged to "8.5").
For the response "< 5" a value of 4.5 was used.

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TABLE E3
Arguments in Favor of Single-Tariff Pricing (a)

State	Regionalization Incentives	Mitigates Rate Shock	Universal Service	Regional Ratepayer Equity	Service Affordability	Small-System Viability	Compliance with Standards	Similar Ratemaking to Other Utilities	Lowers Admin. Costs to Utility	Lowers Admin. Costs to Commission	Regional Economic Development	Encourages Private Involvement	Encourages Investment	Interconnection Not Required	Overall Benefits Outweigh Costs	Other	Number of "Yes" Responses
Alabama	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alaska	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arizona	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	8
Arkansas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California	No	Yes	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	4
Colorado	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Connecticut	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	14
Delaware	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Florida	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	13
Georgia	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Hawaii	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Idaho	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Illinois	Yes	Yes	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	6
Indiana	No	Yes	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	2
Iowa	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Kansas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kentucky	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Louisiana	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Maine	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Maryland	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Massachusetts	No	No	No	Yes	No	No	No	No	Yes	No	No	No	No	Yes	No	No	3
Michigan	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Minnesota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Mississippi	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Missouri	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes	No	No	7
Montana	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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TABLE E3
Arguments in Favor of Single-Tariff Pricing (a)

State	Regionalization Incentives	Mitigates Rate Shock	Universal Service	Regional Ratepayer Equity	Service Affordability	Small-System Viability	Compliance with Standards	Similar Ratemaking to Other Utilities	Lowers Admin. Costs to Utility	Lowers Admin. Costs to Commission	Regional Economic Development	Encourages Private Involvement	Encourages Investment	Interconnection Not Required	Overall Benefits Outweigh Costs	Other	Number of "Yes" Responses
Nebraska	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nevada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
New Hampshire	Yes	Yes	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	4
New Jersey	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	8
New Mexico	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
New York	No	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	No	Yes (b)	3
North Carolina	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes	No	9
North Dakota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Ohio	Yes	Yes	No	No	Yes	Yes	No	No	Yes	No	No	No	No	Yes	No	No	6
Oklahoma	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oregon	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	12
Pennsylvania	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No	11
Rhode Island	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
South Carolina	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	4
South Dakota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Tennessee	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Texas	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	No	No	No	No	No	6
Utah	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vermont	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	Yes (c)	1
Virginia	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	No	No	No	No	No	No	6
Washington	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	14
West Virginia	Yes	No	No	Yes	Yes	No	No	Yes	No	No	No	No	No	Yes	Yes	No	6
Wisconsin	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D.C.	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E3
Arguments in Favor of Single-Tariff Pricing (a)

State	Regionalization Incentives	Mitigates Rate Shock	Universal Service	Regional Ratepayer Equity	Service Affordability	Small-System Viability	Compliance with Standards	Similar Ratemaking to Other Utilities	Lowers Admin. Costs to Utility	Lowers Admin. Costs to Commission	Regional Economic Development	Encourages Private Involvement	Encourages Investment	Interconnection Not Required	Overall Benefits Outweigh Costs	Other	Number of "Yes" Responses
Summary Data																	
Yes	15	17	8	6	12	13	9	10	16	8	3	2	5	13	9	2	–
No	6	4	13	15	9	8	12	11	5	13	18	19	16	8	12	19	–
Not an issue	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	–
Not applciable	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	–
No jurisidction	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	–
Total	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	–

(a) These findings reflect staff views about the arguments affecting commission deliberations or policies.
(b) Can be consistent with cost-of-service principles.
(c) The board determined that single-tariff pricing was in the public interest and approved it over the objections of staff concerns about subsidies.

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E4
Arguments Against Single-Tariff Pricing (a)

State	Conflict with Cost-of-Service	Undermines Economic Efficiency	Subsidies to High-Cost Customers	Distorts Price Signals	Discourages Efficient Water Use	Encourages Growth in High-Cost Areas	Encourages Overinvestment	Fails to Account for Contributions	Unnecessary Incentives	Inappropriate Without Interconnection	Not Acceptable to All Customers	Not Acceptable to Agencies	Not Justified in a Specific Case	Insufficient Precedents	Overall Costs Outweigh Benefits	Other	Number of "Yes" Responses
Alabama	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alaska	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arizona	Yes	No	Yes	No	No	Yes	No	No	No	Yes	Yes	No	No	No	No	No	5
Arkansas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	7
Colorado	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Connecticut	Yes	No	Yes	No	No	Yes	No	No	No	Yes	Yes	No	No	Yes	No	No	6
Delaware	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Florida	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	15
Georgia	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Hawaii	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Idaho	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Illinois	Yes	No	No	No	No	No	No	No	No	No	No	No	Yes	No	Yes	No	3
Indiana	Yes	No	No	No	No	No	No	Yes	No	No	Yes	No	Yes	No	No	No	4
Iowa	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Kansas	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kentucky	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Louisiana	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Maine	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Maryland	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Massachusetts	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	No	3
Michigan	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Minnesota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Mississippi	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Missouri	Yes	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	No	5
Montana	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E4
Arguments Against Single-Tariff Pricing (a)

State	Conflict with Cost-of-Service	Undermines Economic Efficiency	Subsidies to High-Cost Customers	Distorts Price Signals	Discourages Efficient Water Use	Encourages Growth in High-Cost Areas	Encourages Overinvestment	Fails to Account for Contributions	Unnecessary Incentives	Inappropriate Without Interconnection	Not Acceptable to All Customers	Not Acceptable to Agencies	Not Justified in a Specific Case	Insufficient Precedents	Overall Costs Outweigh Benefits	Other	Number of "Yes" Responses
Nebraska	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nevada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
New Hampshire	Yes	No	Yes	No	No	No	No	Yes	No	Yes	Yes	No	No	No	No	No	5
New Jersey	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
New Mexico	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
New York	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	Yes	No	No	No	9
North Carolina	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	3
North Dakota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Ohio	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
Oklahoma	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oregon	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
Pennsylvania	Yes	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	No	3
Rhode Island	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
South Carolina	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	0
South Dakota	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ
Tennessee	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Texas	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	No	2
Utah	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vermont	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	No	No	No	No	4
Virginia	Yes	No	Yes	No	No	No	No	No	Yes	No	No	No	No	No	No	No	3
Washington	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	3
West Virginia	Yes	No	No	No	No	No	No	Yes	No	No	No	No	Yes	No	No	No	3
Wisconsin	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D.C.	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ	NJ

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

TABLE E4
Arguments Against Single-Tariff Pricing (a)

State	Conflict with Cost-of-Service	Undermines Economic Efficiency	Subsidies to High-Cost Customers	Distorts Price Signals	Discourages Efficient Water Use	Encourages Growth in High-Cost Areas	Encourages Overinvestment	Fails to Account for Contributions	Unnecessary Incentives	Inappropriate Without Interconnection	Not Acceptable to All Customers	Not Acceptable to Agencies	Not Justified in a Specific Case	Insufficient Precedents	Overall Costs Outweigh Benefits	Other	Number of "Yes" Responses
Summary Data																	
Yes	14	3	12	7	4	4	1	6	2	8	10	2	6	2	2	0	--
No	7	18	9	14	17	17	20	15	19	13	11	19	15	19	19	21	--
Not an issue	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	--
Not applciable	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	--
No jurisidction	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	--
Total	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	--

(a) These findings reflect staff views about the arguments affecting commission deliberations or policies.

NA = Not applicable; NR = Not reported; NJ = No jurisdiction

Exhibit B

System 5/8 x 3/4 customers / avg. gallons	Current Rates *(Dec. No. 71410 impact on rates)*	Company Proposed Rates	Staff Stand Alone Rates	Staff Scenario #1	Staff Scenario #2	Staff Scenario #3	RUCO Stand Alone Rates
Paradise Valley *2,232 / 20,406*	$54.98 *($49.20 / 11.76%)*	Not Affected	Not Affected	$68.98 *$14.19 / 25.90%*	$73.02 *$18.23 / 33.27%*	$80.24 *$25.45 / 46.44%*	Not Affected
Havasu *6,582 / 9,796*	$50.09 *($36.59 / 36.90%)*	Not Affected	Not Affected	$32.39 *-$18.07 / -35.88%*	$34.29 *-$16.07 / -31.91%*	$23.69 *-$26.67 / -52.95%*	Not Affected
Mohave ■ Bullhead ■ Rio *14,428 / 8,070*	$18.01 $20.98 *($17.44 / 3.24%)*	Not Affected	Not Affected	$28.41 *$10.40 / 57.77%* $33.58 *$12.60 / 60.05%*	$30.41 *$12.40 / 68.87%* $35.63 *$14.65 / 69.81%*	$21.11 *$3.10 / 17.21%* $24.51 *$3.53 / 16.80%*	Not Affected
Tubac *451 / 11,740*	$58.59 *($50.04 / 17.08%)*	Not Affected	Not Affected	$38.81 *-$19.55 / -33.50%*	$41.15 *-$17.21 / -29.49%*	$27.70 *-$30.66 / -52.54%*	Not Affected
Anthem *4,869 / 9,616*	$37.22	**$74.59** ***$37.37 / 100.39%***	**$65.85** ***$28.63 / 76.89%***	$31.89 *-$5.34 / -14.34%*	$33.89 *-$3.34 / -8.97%*	$35.89 *-$1.34 / -3.60%*	**$64.63** ***$27.41 / 73.61%***
Agua Fria *27,417 / 7,679*	$30.42 *($24.16 / 25.93%)*	Not Affected	Not Affected	$27.53 *-$3.65 / -11.72%*	$29.53 *-$1.65 / -5.31%*	$31.53 *$0.35 / 1.11%*	Not Affected
Sun City 19,950 / 7,954	$16.73	**$21.37** ***$4.64 / 27.75%***	**$18.04** ***$1.31 / 7.80%***	$28.15 *$11.42 / 68.23%*	$25.15 *$8.42 / 50.30%*	$25.15 *$8.42 / 50.30%*	**$18.04** ***$1.31 / 7.80%***
Sun City West *14,052 / 6,702*	$32.42 *($19.51 / 66.11%)*	Not Affected	Not Affected	$25.33 *-$7.08 / -21.85%*	$22.33 *-$10.08 / -31.10%*	$22.33 *-$10.08 / -31.10%*	Not Affected

Arizona-American Rate Case – Proposed Rate Design Options

$XXX — Indicates rates exceeding $5.00 increase from cost of service rates due to rate consolidation ("Unduly Burdened Districts")

$XXX — Indicates rates exceeding a $5.00 savings from cost of service rates due to rate consolidation ("Unearned Benefit Districts")

$XXX — Indicates consolidated rates falling between a $5.00 increase and a $5.00 decrease compared to cost of service rates

Exhibit C

DR 97-058

pennichuck water works, inc.

Petition for Permanent Rate Increase

Order Approving Settlement Agreement and Petition for Rate Consolidation

O R D E R N O. 22,883

March 25, 1998

APPEARANCES: Gallagher, Callahan and Gartrell by David A. Garfunkel, Esq. for Pennichuck Water Works, Inc.; Ransmeier and Spellman by Dom S. D'Ambruoso, Esq. for Anheuser-Busch, Inc.; Amy L. Ignatius, Esq. for the Staff of the New Hampshire Public Utilities Commission.

I. PROCEDURAL HISTORY

Pennichuck Water Works, Inc. (Pennichuck) serves the southern New Hampshire area, operating a core system that serves Nashua and portions of Amherst, Merrimack, Milford, Hollis and Bedford, as well as 10 independent community systems serving portions of Epping, Derry, Bedford, Milford and Plaistow. On May 28, 1997, Pennichuck filed with the New Hampshire Public Utilities Commission (Commission) a petition for an increase in its rates and to consolidate the rates of the core and community systems, even though the systems are not physically interconnected.

Anheuser-Busch, Inc. (AB), Pennichuck's largest customer, sought and was granted intervention.

Pennichuck requested an overall 26.98% increase in permanent rates, on a consolidated system basis. In its testimony filed July 10, 1997, Pennichuck also requested a temporary increase in revenues overall, to be derived solely from core customers, which the Commission granted by Order No. 22,683 (August 18, 1997). The 5.12% increase in revenues, on a temporary basis, excluded the community systems and all commercial and municipal fire protection customers. This resulted in a 7.8% increase in rates to those core customers affected.

Subsequent to the temporary rate order, on November 6, 1997, AB filed testimony of its expert witness, Ernest Harwig, opposing rate consolidation. Also on that date, Staff filed testimony of Douglas W. Brogan, James L. Lenihan and Mark A. Naylor. Staff witness Tracy B. Guyette filed testimony on November 13, 1997.

On December 5, 1997, AB moved for permission to file rebuttal testimony, which Staff opposed. The Commission granted the request and on December 23, 1997, AB filed rebuttal testimony of Mr. Harwig. Also on that date, Pennichuck filed rebuttal testimony of Stephen J. Densberger and its consultant Janice A. Beecher. On January 6, 1998, AB moved to strike Dr. Beecher's testimony, which Pennichuck opposed. The Commission denied the motion to strike. On January 22, 1998, AB filed surrebuttal testimony of Mr. Harwig and on the following date, Staff filed surrebuttal testimony of Mr. Brogan.

On January 30, 1998, Pennichuck and Staff submitted a Settlement Agreement on all issues except rate consolidation. The Commission took evidence on the Settlement Agreement and the contested issue of rate consolidation on February 3 through 5, 1998.

II. SETTLEMENT AGREEMENT

The Settlement Agreement addressed all issues except rate consolidation. Revenue requirements were calculated for the systems on a stand alone basis, with Pennichuck's explicit statement that it did not agree to stand alone calculations. AB did not participate in the settlement negotiations on any issue other than rate consolidation and took no position on the Settlement Agreement.

Revenue deficiency for the core was set at $511,230 and at levels for the community systems ranging from ($7,158) to $41,791, based on stipulated rate base and net operating income for the core and community systems (found as attachments to the Settlement Agreement). Pennichuck and Staff agreed on an allowed return on common equity of 10.35%, a cost of long term debt of 7.41%, cost of short term debt of 7.43%, and a treatment of a parent company infusion as short term debt, producing an overall cost of capital of 8.34%.

The proposed revenue increase would be collected on all but private and municipal fire protection customers, based on a recent review of Pennichuck's 1992 cost of service study that indicated an over-collection of fire protection charges. Pennichuck and Staff recommend, therefore, that fire protection rates remain at their present levels.

Pennichuck and Staff also agreed to a step adjustment to occur simultaneously with the increase in permanent rates, to reflect plant additions completed on or before December 31, 1997 that were made in conformance with the Safe Drinking Water Act or mandated by the City of Nashua and/or the State for highway work, or any projects in which $50,000 or more was expended on non-revenue producing items. In addition, the step adjustment would reflect one year's accumulated depreciation and related deferred

taxes and one year's depreciation expense and property taxes in connection with the approved plant additions. Again, private and municipal fire protection customers would be excluded from the increase.

The proposed permanent rate increase, excluding the step adjustment, is the same as that approved by the Commission for temporary rates; therefore there would be no recoupment for the difference between temporary and permanent rates. Rate case expenses, however, would be surcharged over a 12 month period. The actual amount of rate case expenses will be determined after review of a compliance filing Pennichuck is to submit upon issuance of this order.

Finally, regarding depreciation, Pennichuck and Staff agree to use the "whole life" rather than Pennichuck's proposed "average remaining life" methodology, for an annual depreciation expense of $1,272,791, which results in an annual composite depreciation rate of 2.44%.

III. POSITIONS OF THE PARTIES AND STAFF ON RATE CONSOLIDATION

A. Pennichuck and Engineering Staff

Pennichuck sought to consolidate all of the community systems into one set of rates, even though the systems are not physically interconnected. Applying the settlement figures, including the step adjustment, the consolidated rate would be approximately $253 per year for the average residential user. By contrast, again applying the settlement revenue requirements but keeping the rates on a stand alone basis would result in an average residential core rate of $245 per year; the community systems' rates would range from $291 to $1,166 per year. Single family residential customers in the core system, therefore, would pay an additional $8 per year under the rate consolidation proposal, while most of the community system customers would see a decrease in their bills.

In support of the rate consolidation proposal, Pennichuck argued that the community systems would benefit from Pennichuck's ability to upgrade or repair facilities as necessary to meet environmental mandates without fear of overwhelming community systems' customers. Because the community systems are small (ranging from 29 to 458 customers), any significant capital improvement can result in a significant increase in rates.

Pennichuck anticipates reduction in regulatory and accounting expense if the systems are consolidated, and predicts that with rate consolidation it would be better able to consider purchase of small systems in the future, as the Commission has encouraged.

Pennichuck's consultant, Janice A. Beecher, testified that commissions have ruled both ways on rate consolidation proposals, and found merit in Pennichuck's request. In her view, Pennichuck's community systems are simply too small to be viable on a stand alone basis.

Staff engineer Douglas W. Brogan testified in support of Pennichuck's proposal, concluding that the viability of the systems and their ability to come into and remain in conformance with environmental standards would be greatly enhanced by consolidation with the core. He analyzed characteristics of the systems and asserted that they bore strong similarities to the core, further bolstering the arguments for rate consolidation. He distinguished this proposal from the Consumers New Hampshire water system in which unhappiness with rate consolidation was the source of much of the impetus for the town of Hudson purchase of Consumers New Hampshire's assets. According to Brogan, the Consumers New Hampshire systems had different characteristics than the Pennichuck systems. Further, Consumers New Hampshire's service and water quality and utility management were not on a par with that of Pennichuck.

Brogan stated he would not support rate consolidation in all cases, but that the particular circumstances in this case justified approval of the request. He felt the approximately $8 per year increase to single family residential core customers under rate consolidation was justified by the benefits that accrued to all Pennichuck ratepayers, and the overall rate of $253 per year was just and reasonable.

B. Anheuser-Busch, Economics and Finance Staff

AB, Pennichuck's largest industrial customer, opposed the rate consolidation proposal. AB's consultant Ernest Harwig argued that consolidation of rates, also known as single tariff pricing (STP), was unwise regulatory policy because it breaks the connection between rates and costs. It changes the economics for water conservation, especially in the community systems, because the rate decreases produced by STP weaken the incentive to conserve. Mr. Harwig indicated that the subsidy to be paid by AB would be $20,000 annually, and he rejected the notion that Pennichuck is one large consolidated operation because of the differences between demand characteristics of the core system and those of the community systems.

Applying the Settlement revenues and assuming rate consolidation is approved, AB's yearly charge (pursuant to a special contract) would increase by $99,990, from $481,417 to $581,407. Without rate consolidation, the increase would be approximately $20,000 less, as testified by Mr. Harwig.

The Commission's Acting Finance Director, Mark A. Naylor, testified in opposition to the proposal, arguing among other things that by blending the rates there would be no tracking of the specific costs of each system. In response, Pennichuck stated that while it would not keep full books on each

system, it would record and make available all costs on a system by system basis. Naylor questioned Pennichuck's anticipated savings in regulatory and accounting costs for two reasons: 1) it could not quantify those savings and did not provide for any savings in this rate filing, and 2) its response noted above that it would track the costs of each system and this would appear to erode the anticipated savings. Mr. Naylor also testified that, unlike other regulated utilities which are moving toward deregulation as a result of alternative choices in "supplies" of product, water is unique in not enjoying such supply alternatives, and price signals to customers become even more critical in properly managing water resources.

Staff Economist James L. Lenihan also opposed consolidation on the ground that the systems are not physically interconnected and, therefore, should not have rates set on a consolidated basis. According to Lenihan, the community systems should remain on a stand alone basis in order to reflect true costs of each system. The "subsidy" by core customers, although small, would be inappropriate.

IV. COMMISSION ANALYSIS

We have reviewed the Settlement Agreement and testimony and conclude that the Settlement Agreement is a sound resolution of the rate case issues. We recognize that Pennichuck has faced extraordinary costs due to highway and other construction work mandated by the State and the City of Nashua. These capital intensive, non-revenue producing projects have put a strain on the company, in part prompting us to approve a 5.12% increase in revenues on a temporary basis in August, 1997. In addition, we recognized that the mandates of the Safe Drinking Water Act or other environmental standards have required significant investments in both the core and community systems.

Because of the magnitude of some of these investments, we will accept the recommendation that we approve a simultaneous step adjustment on the effective date of the permanent rate increase, for certain specified improvements. To do otherwise would force Pennichuck to file another rate case relatively soon, which ultimately is a cost borne by ratepayers. For projects completed in 1997 that meet the threshold criteria, we will approve the step adjustment.

While New Hampshire law is replete with references to the appropriate standard for establishing a utility's rate base and rate of return, there appears to be no specific guidance on the point of rate consolidation or single tariff pricing. Thus, in the absence of any legal impediment to utilizing single tariff pricing, our decision essentially becomes one of policy that is bound only by our statutory constraints that rates be just and reasonable and that we act in the public interest. See RSAs 374:2 and 378:28.

Opponents of rate consolidation in this case argue that we should adhere to our traditional ratemaking policy of cost causation. We find their position unpersuasive in this case for two reasons. First, traditional cost of service regulation already includes some measure of rate averaging in that customers are not charged the true costs of serving them on an individual basis. Second, and perhaps more important, stand alone rates in this case produce results for some customers that are well beyond the zone of "just and reasonable". One needs only to look at the stand alone rates that would result from the Settlement Agreement to see just how extreme the results are when significant investments are required in a very small system. Most of the community systems are simply too small to absorb the magnitude of investments mandated by environmental enactments. However, without these investments, it is clear that the small community systems would have been unable to provide safe and adequate water service to their customers.

We do not believe it would be in the public interest to impose annual rates in the range of $800 to $1200, as would be the case here, when a reasonable alternative is available. By consolidating the community systems with the core system for ratemaking purposes, all customers would face a uniform tariff which, for the average residential customer, would be approximately $253 per year. The rates for the average residential customer in the core system would increase less than $1.00 per month, for a total of $8 per year, under the rate consolidation proposal which, in light of the alternative, we find to be acceptable. We consider a single tariff rate of approximately $253 per year for the core residential customer to be just and reasonable. A consolidated rate will ensure affordability and the continued viability of many of Pennichuck's community systems. It will also enable Pennichuck to operate in a more administratively efficient manner by eliminating separate general ledgers for each system, thereby reducing administrative costs.

Although we are approving the rate consolidation proposal, we share the concerns of Mr. Naylor that there is a risk that there will be inadequate information tracked on a community system basis and, as a result, a troubled system, or over-investment, could escape the scrutiny of management and regulators. We accept the commitment of Pennichuck to record costs on a system specific basis.

We find that all investments that are the subject of this proceeding have been prudently incurred and that the facilities are used and useful in the provision of public utility service.

The result of the rate consolidation proposal and the Settlement Agreement, including the step adjustment, will be an additional increase of 12.97% for customers (excluding fire protection customers) for bills rendered on or after April 1, 1998. Together with the temporary rate increase approved in August, 1997 (which mirrors the permanent rate increase approved by this order) Pennichuck will see a total 16.77% increase in revenues and general metered core customers will see a total 20.77% increase in rates over those in effect prior to the filing of the rate case in the summer of 1997. The billing impact for core customers as of April 1, 1998, however, will be 12.97%, given that 7.8% of the increase has already been included in rates as of the temporary rate order last August. As of April 1, 1998, community system customers will see increases or decreases in their bills according to whether their community system rate had been above or below the consolidated rate of approximately $253 per year.

Finally, we emphasize that by approving rate consolidation in this case, we are not accepting it as a generic policy for all water companies.

Based upon the foregoing, it is hereby

ORDERED, that the Settlement Agreement reached between Pennichuck and Staff is APPROVED; and it is

FURTHER ORDERED, that Pennichuck's rate consolidation proposal is APPROVED; and it is

FURTHER ORDERED, that Pennichuck shall file its final rate case expense request within five days for Staff review and Commission consideration; and it is

FURTHER ORDERED, that Pennichuck shall submit a compliance tariff within five days in conformance of this order.

By order of the Public Utilities Commission of New Hampshire this twenty-fifth day of March, 1998.

Douglas L. Patch	Bruce B. Ellsworth	Susan S. Geiger
Chairman	Commissioner	Commissioner

Attested by:

Thomas B. Getz
Executive Director and Secretary